

Virgil's PASTORALS

Translated into *English* Prose;

A S A L S O

His GEORGICKS,

With such *Notes* and *Reflexions* as
make him appear to have wrote
like an *excellent Farmer*.

To which is added,

An APPENDIX,

Shewing *Scotland's* chief and principal
worldly Interest.

By James Hamilton Schoolmaster in East-Calder.



EDINBURGH,

Printed by W. CHEYNE, in *Craig's Clofs* opposite
to the *Cross*. Sold by J. TRAILL and G. CRAW-
FORD, Booksellers in the *Parliament-Clofs*; and
by J. BARRY Bookseller in *Glasgow*. 1742.

1634
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To *Thomas Hope* of *Rankei-*
lor, Preses ; and to the ho-
 nourable the Society for
 Improving in the Know-
 ledge of AGRICULTURE
 in *North-Britain*.

My Lords and Gentlemen,

AT the same Time I formed a De-
 sign of publishing what follows,
 I resolved to flee to your Pro-
 tection. For,

First, I considered, that as there are a
 great Number of Insects which feed on
 Carrion, Sores and Putrefaction ; so there
 are a great many Men, who read Books
 with scarce any other Intention, but to fix
 upon the Weaknesses and Imperfections of
 Authors ; thus losing the Benefit to them-
 selves, and sometimes rendring that un-
 profitable, which might be of Use to the
 Publick ; not considering, that if we should
 expect perfect human Performances, at the
 same Time we might believe that Authors
 would fall from the Clouds, and so enter-
 tain as ridiculous a Notion as the *Ephesi-*
ans

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ans, who believed that the Image of *Diana* dropt down from *Jupiter*.

Again, there are others, who, if they be in good Circumstances themselves, are careless about the Welfare of human Society. Pity that such cannot be excluded from it, till made sensible of their Dependence thereon! How soon would such Wretches value the Merchant, who brings home Iron for the Plough, or the Smith and Wright who make it? the Weaver and Taylor, too, who cover their Nakedness, &c.

Next, I believe there is no more common Vice among Mankind, than Levity and Inconstancy. This seems evident, because we cannot fix upon the same Object for any considerable Time, but wander from one to another, often forsaking the Centre of all Perfection and Felicity. Tho' this be true, yet we incline to be esteemed steady and constant; and so fond are we of the good Opinion of others, that it is too common a Fault in our Country, that, in order to be reckoned wise, solid and judicious, we tenaciously and obstinately adhere to the Customs of our Ancestors, not allowing ourselves narrowly to observe the Practice of neighbouring Nations, when by they make themselves rich and happy,

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DEDICATION. V

despising our wilful Ignorance, Sloth and Obstinacy.

My Lords and Gentlemen,

I am heartily sorry that the following Volume does not appear in such a polite Dress, adorned with all the Embellishments of Wit, Judgment and Learning, suitable to the Taste of such learned and judicious Readers. All the Apology I can make is, that I have bestowed as much Time and Thought as my Circumstances would allow, and have consulted the best Commentators and Translators of *Virgil*. In my *Appendix* I have not made the Choice of Words and Connexion so much my Study, as to render what I have wrote useful, not designing so much to shew elaborate Pages, as desiring to see well labour'd Ridges.

My Lords and Gentlemen,

Tho' I am ashamed to beg your Protection, and the Continuation of your Favours, considering how mean any Thing I can claim as my own may appear; yet, knowing you to be noble Patriots, such as use your Endeavours, both by your Precept and Practice, to lay before us such Rules, as, if universally followed, would render us a most flourishing Nation, I own that I am not without Hope, that my Design shall

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shall meet with a favourable Reception from the whole of the noble and honourable Members of the Society ; which Design is as follows. Knowing that *Virgil's* Works are put into the Hands of the principal Hope of the Age, the Children of such as are most capable to bestow such a Stock upon them, as, if well improv'd, may tend to their own Happiness, and to render them publick Blessings ; I say, sensible of this, I know not how to serve my Country better, than by publishing the following Thoughts upon Husbandry ; which I hope may beget an Inclination in such Youth, who are most capable of improving in Agriculture, to make it their Business so to do. I know no better Way for a Gentleman's Son to raise his Fortune. If it be certain that there are many Hundreds of Farms in *Scotland*, rented yearly at 200 or 300 Merks, containing 50, 60, or 100 Acres of Ground, and that one or two of these, planted with Potatoes on each Farm, may pay the Proprietor's Rent : If it be true, that three or four Acres may double it, by sowing Roots and feeding Swine therewith : If it must be owned, that ten Acres in a moorland Farm may produce Half a Chalders of Corn *per* Acre, provided the same be well cul-

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cultivated and improven: If it be easy to
 cause an Acre thereof to feed an Ox at
 five or six Pounds Value, at least, by dung-
 ing the Grass, &c. I hope no Gentleman
 will grudge two Shillings for these Sheets,
 in order to put them into the Hands of
 his Children.

My Lords and Gentlemen,

I dare not deny myself so much, as to
 say I have no private View in the Publi-
 cation of what follows. I have always
 thought, that *to love our Neighbours as our-
 selves*, is a Rule which shines with a di-
 vine Lustre; but if we abstract the Boun-
 dary (*self*) from this most excellent Pre-
 cept, we very much lessen its Splendor.
 My Design is (God willing) to betake
 myself to a Farm; this I resolve to manure,
 cultivate and improve to the utmost of my
 Power, my Ambition being to shew a Spe-
 cimen of good Husbandry. I incline to
 provide myself in Ploughs and one Plough-
 man from *Hertfordshire*, on Condition that
 he teach a set Number from different Shires
 or in *Scotland*. By these, besides other Ad-
 vantages, I propose sometimes to lay my
 Ground flat, at other Times to raise it;
 sometimes to turn it into broad Lands, at
 other Times into Bouts; sometimes to
 plow straight, at other Times athwart,
 &c.

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Ec. so that, by this Method, I expect to supply my Seed yearly with fresh Earth: Yet I own, tho' I have spread my Sails, it is chiefly your Favour that must fill them, otherways I cannot perform my Voyage. The Sale of 2000 Copies will enable me to accomplish my Design. If you honour me by your Interest with publick-spirited Gentlemen, I am sure it will be so prevalent, as that I have no Ground to fear Abortion from others. I have not filled this Dedication with high Encomiums, which frequently deserve no other Epithet than fullom-Flatteries. Whoever reads your Transactions, will see it needless for me to celebrate your just Praises. No Man can open his Eyes within your Properties, but presently he will see how much we in this Country are for ever indebted to you.

No more, therefore, is added upon this Subject, lest the Greatness of your Merit should not be sufficiently described by the mean Translator and Author, who is, with all Manner of Respect, and Sense of Gratitude,

My Lords and Gentlemen,

Your most obedient, and

most humble Servant,

James Hamilton:

The PREFACE.

IF any incline to see a Specimen of what is written in Praise of my Author, I refer them to Dr. Trapp; I only at present consider him as having been a Man of a generous Soul. I know none of the Classics that may be improv'd so much for the Benefit of Mankind: His Views have been extended to the Welfare and Happiness of the two constituent Parts of human Nature. God willing I design to translate some Paragraphs of *Columella* and *Cato de Re rustica*. After this I shall endeavour to represent *Aeneas*, and others of my Authors Heroes, as Men of Honour, Conscience and Piety, abstracting their heathenish Superstition and Fooleries, or rather shewing what appears in them like Religion and Virtue, in an evangelical Dress. At present I view him chiefly as consulting the Welfare of our Bodies. Much of our Happiness depends upon our Fancy and Imagination; these may be entertained, during the Cold and Frosts of Winter, by his Pastorals with Shepherds under Shades, feeding their Flocks in flowery Meadows, surrounded with flourishing Trees,

b
divided

The PREFACE.

divided by purling Streams, &c. Besides, in this Part of his Work, we have innocent Rusticity, our Passions and Affections set before our very Eyes. His Georgicks might have been rendred most useful, if they had been translated by such as the Earl of Lauderdale or Mr. Dryden, so as to make them appear (as they really are) an excellent System of Husbandry. Whatever a modern Author, remarkable for founding his own Praises, has wrote to lessen the Esteem of ancient Writers, I think I may venture to affirm, that the World owes the Principles of Agriculture more to Virgil, than any who have wrote thereupon for many Ages bypast. I have published his Georgicks with such Reflexions as I hope may be of Use to some of my Readers; wherein I'm defective in using my Endeavours to render them more serviceable, is in Part owing to my narrow Circumstances, which confine me at present. If the Publick still continues to favour me, I design, God willing, to add what further seems to me to be needful, while translating the Authors I mentioned.

I never intended my Version to run in such a smooth Chanel, as if I had not confined myself, as much as I could, with any Propriety of Speech, to the Original. I have endeavoured to be useful to the studious Youth, not by a Paraphrase, but a Translation.

The

The PREFACE. xi

The Reflexion upon our present Poverty, and the Forethought of what may happen to be the Circumstances of ourselves and Posterity, tended much to give Birth to my Appendix. May not we imagine, that God may send us several Years of Scarcity, such as the two last bypast, and ought we not to consider what the dismal Consequences thereof would be? Would not the Poor die with Famine? Would not our Commons give our Coin, not to our own Farmers, but to Strangers? What would become of the Landlord's Rent in this Case? Upon these and the like Considerations I have used my weak Endeavours to prevent the like Judgment for the future. That I may be as useful possible, I propose in my Dedication, by the Profit of these Sheets, to bring Ploughs and a Ploughman from Hertfordshire; I do not esteem either my Judgment or Practice so much, as to think that I need no Assistance. None will deny, I imagine, that this Help I have proposed might prove very beneficial to our Country; hereby all the best English Improvements might be introduced at once. It is known, that this Shire is better cultivated than any County in England, by the Plough. I own that I approve of some other Practices I have seen in other Places, more than theirs. The best Hay-makers, in my Opinion, are about Islington and Highgate; there I have helped to make
Hay

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Hay fit for the Stack in the Evening, which was cut down early in the Morning of the same Day. Yet I own that I would reckon it not only my own Interest, but that of my Country, to have the Assistance I mentioned ; and therefore, generous Reader, I presume to beg your Influence with Gentlemen of your Acquaintance, in order to forward my Design. I do beg it speedily ; in me, God willing, shall be no Delay. If you grant my Request with Pleasure, I shall take Journey this Harvest ; nothing is wanting but your Assistance. I cannot think otherways ; no Gentleman will scruple to lay a Trifle, to gratify his Curiosity in seeing the following Ploughs set to work in his own Country, viz. The Banking, Foot, Double Plough, Wheat-Fallow, Wheat-Seed, Bob-tail, One Wheel, Turn-rise, Double broad Board. Come, then, all ye true Patriots, ye can never have an Opportunity of shewing your Zeal for your Country at an easier Rate, than by desiring Gentlemen to buy one Volume of the Works of the great Virgil,

A LIST

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PAS

PASTORAL I.

TITYRUS and MELIBŒUS.

MELIBŒUS.

Tityrus, thou reposing thyself under the covert of a broad [*i. e. which diffuseth its boughs wide*] beech-tree, dost play a rural tune upon a slender oaten pipe. We leave the confines of our native country, and our pleasant fields. We flee. [*are banished from*] our native country. Thou, Tityrus, lying at thine own ease under the shade, dost teach the woods to resound, *the name of* beautiful Amaryllis.

TIT. O Melibœus, a god [*i. e. the godlike emperor*] hath granted me this repose; for he shall ever be a god to me. [*i. e. he shall ever be esteemed a god by me.*] Oft-times *the blood of* a tender lamb from my folds shall sprinkle his altar. He allowed my oxen to range at liberty, as you see, and myself to play what tunes I incline on a rural cane.

MEL. I don't indeed envy you, but rather admire, there is such a confusion every where thro' the whole fields. [*neighbourhood.*] Lo! I myself, fainting, drive my goats from hence. Tityrus, I scarcely drag this along; for here, she having just now brought forth twins, the hope of my flock, amongst *these* thick hazels, alas! hath left them upon a bare flinty rock. I remember that

A

fre-

frequently (if my mind had not been foolish) the oaks struck from heaven by lightning did foretel that this misfortune would happen to me. Oftentimes the ill-boding crow foretold this from a hollow holm. Tityrus, tell me who is that god you mentioned:

TIT. Melibœus, the city which they call Rome I foolishly imagined to be like this of ours, whether we shepherds use oft to drive our tender lambs. So I knew whelps like to dogs, and kids like their dames. Thus I used to compare great things with small. But this city hath raised herself so above others, as cypress-trees use to do among the bending shrubs.

MEL. And what was the so great cause of your seeing Rome?

TIT. Freedom, which, tho' late, came to me *flow with old age*, after that a gray beard did hang down to me while shaving; yet it did favour me and came after a long time. After that Amaryllis took possession of my soul, Galatea left it [*habet here implies the preter tense with a continuation to the present*] for (I will confess to you while Galatea reigned in my affection, I had neither hope of liberty, nor any care of my own affairs. Tho' many victims went out of my folds, and fat cheese was pressed for the ungrateful town, my right hand never returned home weighty with calves [*i. e. tho' I sold, or offered victims, and carried for cheese for sale to the market, yet I spent all.*]

MEL. I wondred, Amaryllis, why mourning you did invoke the gods, for whom you suffered your apples to hang on their trees. [*The reason follows*] Tityrus was absent from hence. Tityrus, the very pine-trees, the very fountains, and these very groves, called you to return.

Tr

TIT. What should I do? I was neither allowed to leave my servitude, nor could I find elsewhere gods so present *to my prayer*. Here, Melibœus, I saw that youth, to whom my altars smoke twelve days each year. Here first he gave his answer to me making my suit, Lads, feed your heifers as formerly; yoke your bulls.

MEL. Happy old man, therefore thy farm shall remain, and sufficiently large for thee, altho' bare stones and a pool cover all thy pastures with slimy bulrushes. Pasturage, to which they are unaccustomed, shall not try thy pregnant ewes, nor shall the dire contagion of a neighbouring flock hurt them. Happy old man, here, among the known streams and sacred fountains, you shall enjoy the cool shade. On the one hand you have, on your neighbour's march, a hedge which bath its fallow flowers fed upon by Hyblæan bees; it shall invite you to sleep by their soft humming noise; on the other hand the wood-lopper shall sing to heaven under a lofty rock; nor shall in the meantime the hoarse stock-doves, thy delight, nor yet the turtle, cease to coo from aerial elms.

TIT. Therefore nimble stags shall sooner feed in the air, and seas shall leave fishes naked on the beach; the banished Parthian shall drink Arar and the German Tigris, each having wandred thro' the other's country, before his image be effaced from my soul.

MEL. But we will go from hence, some to parched Africk, others to Scythia, and will arrive at the rapid river Oaxis in Crete, and Britain quite disjoined from the whole world. Shall I then ever admire, beholding the confines of my native country a long time hence, and the roof of my poor but covered with turf, (which is my king-

kingdom) seeing them after some years? Shall the
 impious soldier possess these so well cultivated fal-
 lows? Shall the barbarian enjoy these corns? Be-
 hold to what a pass *civil* discord hath brought us
 wretched natives. See for whom we have sowed
 our fields; Melibœus, now graft your pears, range
 your vines in order. Go, my goats, once happy
 cattle, go; I shall not henceforth, extended in a
 green cave, see you hang at a distance from a bushy
 rock. I'll sing no songs. My goats, ye shall
 nor, while I feed you, browse on the flourishing
 trefoil and bitter fallows.

TIT. Yet here you may repose yourself with
 me this night upon green leaves. I have mellow
 apples, soft chesnuts, and plenty of curds [*cheeses*.]
 And now the tops of villages smoke at a distance,
 and greater shades fall from the lofty mountains,
 [i. e. *night approaches, shades of mountains appear-
 ing longer by the declining sun, and villages smok-
 ing, entertainment being designed for such as return
 from the fields.*]

PASTORAL II.

ALEXIS.

THE shepherd Corydon was fired with love to
 beautiful Alexis, the delight of his lord; yet
 he had no ground of hope; only he came daily a-
 mong the thick beeches which had shady tops;
 there, being alone, he in vain rehearsed these undi-
 gested verses to the mountains and woods. O cruel
 Alexis, nought dost thou regard my verses; nought
 dost thou pity me; in a word, thou forcest me to

the die. Now our cattle seek for shades and cool
 places; now the thorny thickets hide the green
 lizards, and Thestylis pounds garlick, wild thyme
 and strong-scented herbs for the reapers tired with
 scorching heat. But while I trace thy steps beneath
 the scorching sun, the groves resound with the
 hoarse grasshoppers *in concert* with me. Was it not
 better to endure the frowning looks of Amaryllis,
 and her haughtry disdain? Was it not easier to suf-
 fer the scorn of Menalcas? Tho' he was black,
 tho' thou art very fair, O beautiful boy, trust not
 thy complexion too far; white with-binds fall,
 black berries are gathered. Alexis, I am despis-
 ed by thee, nor dost thou ask who I am; how
 rich in snowy cattle, how abounding in milk. A
 thousand ewe-lambs of mine range at liberty on
 the mountains of Sicily. I never want new milk
 in summer, nor in the cold of winter. I sing
 those notes which Dircæan Amphion was wont
 to do, if at any time he called [*gathered together*]
 his flocks on Bæotian Aracynthus. Nor am I so
 reformed; I saw myself lately upon the shore,
 when the sea stood untroubled by the winds. I
 will not fear Daphnis, thyself being judge, if the
 image doth never deceive. O that it would on'y
 please thee to dwell with me in the country, which
 is despised by thee, and in lowly cottages, and to
 feed the deer, [*Some, by figere cervos, under-
 stand, to hem them in with stake and rice.*] and to
 give my flock of kids with a green wand. [*Some
 think that cervi signifies forked props; and that
 compellere viridi hibisco, is to drive them to the
 under-green bulrushes, marsh mallows, or water-mallows. I
 rather chuse the first signification.*] Singing in the
 woods, thou shalt imitate Pan with me. Pan
 taught to conjoyn reeds with wax. Pan
 takes

takes care of sheep, and shepherds. Nor do thou disdain to indent thy tender lip with a reed. What did not Amyntas that he might learn that very art. I have a pipe compacted of seven unequal canes, which Damætas gave me long ago, and dying said, This now hath thee for its second owner. Damætas said, the fool Amyntas envies. Besides two young he-goats found by me in no safe vale, with their skins even now flecked with white. Each day they dry [*drain*] two udders of a sheep, which [*he-goats*] I keep for thee. Long time Thestylis has begged to have them from me, and she shall have them, because my presents are disdained by thee. Come hither, beautiful boy, behold the nymphs bring lillies in full baskets. Fair Nais, cropping the pale violets, and the head of poppies, joins the white daffodil and the flower of pleasant-smelling anise, for thee; then, mingling cinnamon and other sweet-scented herbs, adorns the soft flowers of hyacinth with the yellow marigold. Myself will gather quinces *covered* with down and chesnuts which my Amaryllis loved. I will add plumbs as yellow as wax, and honour shall be paid to this fruit also; and, ye laurels, I will pluck you, and thee, myrtle, next, because thou composedst ye blend fragrant odours. Thou art a rustick, Corydon; nor doth Alexis care for thy gifts; nor, if thou shouldst contend in presents, would Iolas yield. Alas! what would I do to my self, wretch that I am, and undone. I have sent the south-wind to my flowers, and the boar to my limpid streams. Ah, frentick, whom flee thou! Even the gods have inhabited the woods, and Trojan Paris. Let Pallas herself dwell in the towers which she built. The woods delight us before all other things. The savage lioness pursues

do pursues the wolf; the wolf the goat; the wan-
 reed, on goat the trifoil's flowers; thee, Corydon, A-
 that Alexis. Every man's own pleasure attracts him.
 un- Behold the oxen draw home the plough *suspended*
 ago, from the yoke, and the sun retiring doubles the
 cond' increasing shades; yet love burns me. What mea-
 vies, sure is there to love? Ah Corydon, Corydon, what
 n no frenzy hath seized thee? You have a vine half-
 with, runed in [i. e. *round*] a leafy elm. Why do
 rs o' not you at last rather set about weaving of some-
 Long, thing with osiers and soft bulrushes, whereof there
 a me's need. You shall find another, if this Alexis dis-
 s are tain thee.

PASTORAL III.

PALÆMON.

MENALCAS:

Tell me, Damætas, whose cattle *are these*? Is
 it *the flock* of Melibœus?

DAM. No, but that of Ægon; Ægon deliver-
 ed it to me lately.

MEN. O sheep always an unlucky flock! While
 he himself courts Næra, and is afraid lest she pre-
 fer me to him, this foreign [*mercenary*] shepherd
 both milk the ewes twice in an hour; by this
 means the juice is drained from the flock, and the
 milk is withdrawn from the lambs.

DAM. Yet remember that these *scandalous prac-*
tices are to be thrown up to men more sparingly.
 We likewise know who-----thee, the he-goats
 looking askaunt, and in what sacred chapel; but
 the easy [*gentle*] nymphs did laugh.

MEN.

MEN. Then I believe it was, when they saw me bark Mycon's grove, and cut his tender vine with a malicious hook.

DAM. Or here, by these old beech-trees, where you broke the bow and arrows of Daphnis, which thou, perverse [*invidious*] Menalcas wast grieved at, when you saw *them* given to the boy; and you had died, if you had not done him harm one way or other.

MEN. What will masters do, when rogues their servants dare talk at this rate? Did I not see you varlet, catch by a snare Damon's goat, his mungrel [*a dog of a wolf and a bitch, with which they used to keep their flocks*] barking much? And when I cried, Where now runs that thief? Tityrus, drive the flock together, [*in order to count them*] you sculked behind the seages.

DAM. Should not he, being overcome, give me the goat which my pipe had won by playing? Do you know it not, that goat was mine, and Damon himself owned *the debt*, but denied that he was able to restore it.

MEN. Thou him by playing? or hadst thou ever a pipe jointed with wax? You booby, was not you wont to murder a wretched tune in the streets upon a screeching straw?

DAM. Will you then that we make trial between ourselves of what each of us can do by turns? I stake this heifer; lest perhaps you may refuse her, she comes twice each day to the milking-pail, and maintains two calves with her udder. Tell you for what stake you will contend.

MEN. I dare not pledge any thing with you of the flock; for I have a father at home, and a cruel step-dame, and both of them number the cattle twice a-day, and one of them the kids; but (since you

you will be mad) I'll lay that which thyself shalt own to be of much greater value, beechen bowls the carved work of the divine Alcimedon; to which a slender vine, added by the turner's instrument, which works with ease, [*alias, on which a vine, added by the carver to the work of the turner,*] doth cover the diffused berries with pale ivy. [*By this last sentence the closeness of the union of the vine and ivy is represented poetically, so as if they both sprouted from the same trunk.*] In the midst there are two figures, *that of Conon*; and who was the other? [*Observe the rustick simplicity of a shepherd presented to your view very agreeably.*] who described the sphere to the nations with a wand, [*a geometrical instrument,*] and what times the reaper and the crooked ploughman should have; nor have I as yet touched them with my lips, but keep them laid up.

DAM. The same Alcimedon hath likeways made for me two bowls, and wreathed their handles around with soft foliage, and placed Orpheus in the midst, and the woods following him; nor have I as yet touched them with my lips, but keep them laid up. If you look to my heifer, there is no reason why you should *so much* praise your bowls.

MEN. You shall not escape me thus at present; I will come whithersoever you shall call me; [*i. e. I'll accept of your own conditions*] but only let Palæmon, who, lo, hath come *hither*, hear these things. [*viz. our conditions, or verses.*] I will teach you not to challenge any man after this in singing.

DAM. Come on then, if you have any thing; there shall be no delay in me, nor do I flee any man; only, neighbour Palæmon, treasure up these things with the deepest judgment; the matter is not small.

B

PAL.

PAL. Sing then, since we sit together on the soft
grass. And now all the fields and every tree teem.
Now the woods put forth leaves. Now is the
most beauteous season of the year. Begin, Damæ-
tas; then, Menalcas, thou shalt follow. Sing in
alternate measures; the muses love alternate verses.

DAM. Ye muses, my song begins from Jove.
All things are full of Jove. [*i. e. he is omnipresent,
every creature has its all from him; his being is im-
mense and unbounded.*] He inhabits and takes care
of the earth, he regards my verses.

MEN. Phoebus loves me; his presents are still
with me, laurels and the sweet-blushing hyacinth.
[*A purple flower called by some, Crow-toes, by others
Red-lillies.*]

DAM. Galatea attacks me with an apple, a
wanton girl, and flees to the willows, but desires
first to have herself seen.

MEN. But my beloved Amyntas unasked comes
to me; so that Delia, *my maid*, is not better
known to our dogs *than he*.

DAM. Presents are prepared for my mistress
for I myself marked the place where the aerial
stock-doves have built their nests.

MEN. I have sent ten golden apples, chosen from
a woodland tree, the best I could; to-morrow
will send more.

DAM. O how often, and *what fine discourse* has
Galatea spoken to me! Ye winds, carry some
part of it to the ears of the gods.

MEN. What avails it, Amyntas, that you do
not despise me in your mind, if, while you hunt
boars, I keep the nets.

DAM. Iolas, send Phyllis to me, 'tis my birth-
day; when I shall sacrifice with a calf for my
fruits, come thyself.

MEN

MEN. I love Phyllis above all others, for she wept at my departure, [*or, upon the thoughts of my departure,*] and said, Beautiful Iolas, a long adieu, adieu. [*The order may be, Iola, amo Phyllida, &c. & inquit mihi, formose, &c.*]

DAM. The wolf is dreadful to the folds, showers pernicious to ripe corn, winds to trees, and the angry frowns of Amaryllis to me.

MEN. Moisture is greatful to sown fields, the crab-tree to weaned kids, the slender fallow to tender cattle, Amyntas solely to me.

DAM. Pollio loves my muse, tho' she be rustick. Ye muses, feed an heifer for your reader.

MEN. Pollio also himself makes fine verses; feed a bull for him, which already can push with the horn, and scatter the sand with his feet.

DAM. Pollio, he who loves thee may he come to that pitch of honour to which he rejoices that you have arrived. May hony flow to him, and the prickly brumbe bear the Jerusalem rose.

MEN. He who hates not Bavius, Mævius, let him love thy verses, and let the same man yoke foxes, and milk he-goats.

DAM. Ye boys, who gather flowers and strawberries which grow on [*creep along*] the ground, O flee hence. [*This agrees better with the English dialect, when put before the verb, than before the vocative case.*] A cold snake lies lurking in the grass.

MEN. My sheep, beware of advancing too far; it is not safe to trust the bank; even now the ram himself just dries his fleece.

DAM. Tityrus, drive thy feeding goats away from the river; myself, when it is the time, will wash them all in the spring.

MEN.

MEN. Boys, fold your sheep. If the heat dry up their milk, we shall, as lately, squeeze their tears in vain with our fingers.

DAM. Alas! how lean a bull have I in a fertile field! the same love is destructive to the cattle and master of the herd.

MEN. Sure love is not the cause of leanness in these; they scarce hang together by their bones. [i. e. *their bones are barely covered with their skin.*] I know not what eye bewitcheth my tender lambs.

DAM. Tell me in what country the expansion of the heaven doth not appear wider than three elns, and you shall be a great oracle to me. [*This enigma may be explain'd by a man descending into a well three elns wide, and looking up to the sky.*]

MEN. Tell in what country flowers grow inscribed with the names of kings, and thou alone take Phyllis. [i. e. *Phyllis shall be thine, and thine alone.*]

PAL. It is not in my power to decide such a contest; both you and he deserve the heifer; and whosoever shall fear the sweets, and feel the bitter disappointments of love. [*metuet dulces, fear lest they should not be lasting.* The meaning, from & quibus, seems to be, *He deserves the heifer who is so well acquainted with the sweets and pains of love, as to be capable of describing them as you have done.*] Lads, stop your streams, the meads have drunk enough. [that is, *Sing no more, you have given me full satisfaction.*]

PAS

PASTORAL IV.

POLLIO.

YE Sicilian muses, let us sing more lofty *verses*.
 Groves and low shrubs do not delight all.
[i. e. all delight not in the low strain of pastorals.]
 If we sing of woods, let these woods be worthy of
 consul. The last age of Cumæan verse *[i. e.*
prophecy] is now arrived. A great series of ages
 begins of new. The virgin Astræa returns. Now
 Saturn's reign returns. At present a new offspring
 is sent down from the high heaven. Thou, chaste
 Lucina, only do thou favour the young boy, *[or,*
the boy just now born,] by whom the iron race shall
 first end, and the golden shall begin thro' the whole
 world: thine own Apollo doth now reign. *[Be-*
cause his predictions were fulfilled.] Pollio, this
 age so very glorious shall begin while you are con-
 sul, *[or, this glory of the age shall rise, meaning, the*
bitter child shall be born,] and great months shall begin to
 roll. Under thy sway, if any vestiges of our guilt
 remain, these being effaced shall free the world
 from perpetual fear. He shall receive the life of
 the gods, he shall see heroes joined to the society
 of the gods, and himself shall be seen by them,
 and rule the peaceable globe with his father's vir-
 tues: but the earth, without any culture, shall
 be sold to thee, O boy, her first presents, the ivy
 which wanders wide, with *the herb called our la-*
y's glove, and the Egyptian beans mixed with the
 smiling foliage. The goats themselves shall return
 homewards with their udders distended with milk;
 nor shall herds fear big lions. The very cradle shall
 bring forth to thee pleasant flowers. The serpent

too shall die, and the fraudulent poisonous herb shall
 wither. The Syrian rose shall grow commonly.
 But as soon as you shall be capable to know the
 fame of heroes, and read the deeds of your father,
 the field by degrees shall become yellow with ripe
 ears of corn, and the blushing grape shall hang on
 the savage brambles, and the hard oaks shall sweat
 dewy hony. Yet a few footsteps of old guilt shall
 remain, which shall prompt *men* to tempt the sea
 with ships, to inclose cities with walls, and im-
 print furrows on the ground. There shall be then
 another Tiphys, and another Argo which may
 carry chosen heroes. [i. e. *there shall be another ad-
 miral, ship, and hero such as Achilles.*] There shall
 also be other wars, and great Achilles shall be sent
 a second time to Troy. Afterwards, when a robust
 age shall have rendred you a man, the sailor himself
 shall forsake the sea; nor shall the naval pine ex-
 change traffick. All lands shall bear all things.
 The ground shall not suffer the harrow, nor vine
 the pruning-hook. The robust ploughman then
 shall also unyoke the bulls, nor shall the wooll learn
 to counterfeit various colours; but the ram himself
 now shall change the natural colour of his fleece
 with the agreeable blooming purple, or the yellow
 taint of crocus; and the crimson, without any force
 shall clothe the feeding lambs. The unanimous de-
 stinies, by a firm decree of fate, said to their distaffs
 let such ages run. O darling offspring of the gods
 thou great increase of Jove, advance to great ho-
 nours! The time now comes. Behold, the world
 shaking with its convex weight, the earth, the
 whole sea, and the high heavens. See how all
 things rejoice on account of the future age. O wild
 may the last part of so long a life remain to me
 and so much breath [*or, spirit of poetry*] as shall

be sufficient to relate thy deeds. Neither Thracian Orpheus shall excel me in poetry, nor Linus, tho' his mother should assist the one, and his father the other, Calliope Orpheus, and beautiful Apollo Linus. If Pan himself should contend with me, Arcadia being judge, Pan also would own himself overcome by the judgment of Arcadia. Little boy, begin to know and own thy mother with a smile. Ten months brought nauseous qualms of a long continuance to your mother. Begin, little boy. That boy on whom the parents do not smile, a god doth not think him worthy of his table, nor a goddess of her bed. [*The meaning to me seems to be this. Smile upon your mother, as a requital for her sickness and squeamishness; this is the way to engage the affections of your parents, and make them smile upon you, which if they do not, it is a bad omen, that you shall not be advanced to the honours mentioned.*]

PASTORAL V.

DAPHNIS.

MENALCAS.

MOpsus, since we have met, both of us skilful, thou in playing upon the slender pipe, and in chanting verses, why do we not sit down here among the elms mixed with hazels?

Mop. Thou art the elder, Menalcas; it is reasonable I should obey you, whether we go beneath the shades uncertain by the zephyrs which wave about them, or rather into this grotto. Behold how the wild vine hath spread itself over the grotto with its main branches.

MEN.

MEN. Amyntas only can contend with thee in our hills.

MOP. What if he should also strive to exceed Phoebus in singing.

MEN. Mopsus, begin thou first. If you have any thing to sing of the fires of Phyllis, [i. e. *her excessive love to Demophoon*,] or Alcon's praise or the scolding of Codrus, begin, Tityrus shall attend thy feeding kids.

MOP. I rather will try these verses which I wrote lately on the green bark of a beech, and singing noted them down alternately; [i. e. *alternately I sung them and noted them on the bark of beech*;] then bid thou Amyntas vye with me.

MEN. As the limber willow yields to the palm olive, as the humble lavender to the crimson rose, so much in my judgment Amyntas yields to thee [i. e. *is inferior to thee*.]

MOP. But, young man, desist from speaking any more; we have entered the cave. The nymphs lamented Daphnis extinct by a cruel death. The hazels and rivers were witnesses to the grief of the nymphs; when his mother, having embraced the miserable body of her son, calls the gods and stars cruel. Daphnis, none drove their fed cattle at that time to the cool streams. No steed did either taste the brook or touch a pile of grain. Daphnis, both the desert mountains and the woods tell, that even the Libyan lions mourned thy death. Daphnis taught to join Armenian tigers in a chariot. Daphnis taught to lead up dances to Bacchus, and to wreath bending spears with soft leaves. As the vine is an ornament to trees, as the grapes to the vines, as bulls to the herds, as corns to the fertile fields, so thou art all the ornament to thy friends. After the fates carried thee off, even now

Palægg

ales and Apollo himself forsook the fields. Oft-
 times unlucky danel and barren [*wild*] oats pre-
 ail in these furrows where we sowed barley; for
 the soft violet, for the purple-coloured daffodil, the
 histle and thorn rise up with sharp prickles. Ye
 shepherds, strew the ground with leaves, overshade
 the brooks *with boughs*; Daphnis ordains such
 rites to be performed to him: and make a tomb,
 and on *this* tomb inscribe this epitaph; I Daph-
 nis *ly here*, famed hitherto in the woods to the
 shepherds, the keeper of a beautiful flock, I myself
 more beautiful.

MEN. Divine poet, thy verse is such [*so agree-*
 able] to me, as sleep on the grass is to the weary;
 it is to quench thirst in summer's heat with a
 cooling rill of sweet water. Nor are you equal
 to your master only by your pipe, but by your
 verse. Happy youth, you shall be next to him.
 I, in my turn, will repeat to thee my *verses*
 as well as I can, and will raise thy Daphnis to
 the stars; I'll extol Daphnis to the stars. Daph-
 nis also loved me.

MOP. Can any thing be more agreeable to me
 than such an office? [*viz. to praise Daphnis.*] The
 god himself deserved to be praised; and long since
 Panion praised these your verses to me.

MEN. Daphnis in white doth admire the gate
 of heaven to which he was not accustomed, and
 the clouds and stars beneath his feet; there-
 fore joy and pleasure possess the woods; and all
 the fields, Pan, shepherds, and silvan nymphs. Nor
 do the wolf meditate wily plots against the herd,
 nor are any toils contrived for deceiving snares to
 be set. Good Daphnis loves peace. Even the uni-
 versal mountains, [*i. e. covered with trees and shrubs,*
Palmyred mountains,] raise their voices with joy to the

the stars; now the very rocks and woods resound
 this verse, He is a god, he is a god, Menalcas. Be
 good, O be kind to thy adorers. Behold four altars,
 two for thee, Daphnis, and two for Phoebus. I will
 appoint for thee two bowls each year froathing
 with new milk, and two goblets of fat oyl; and
 chiefly chearing the feast with much wine, before
 the fire if it shall be cold, beneath the shade if it
 be summer, I'll pour Chian wine a new nectar from
 large bowls. Damoetas and Lycian Ægon shall
 sing to me; Alphesibœus shall mimick the dan-
 cing satyrs. These rites shall be thine for ever
 both when we pay solemn vows to the nymphs
 and when we lead the victim round the fields.
 While the boar loves tops of mountains, while
 fish the streams, while bees feed on thyme, while
 grasshoppers on dew, thy honour, name and praise
 shall ever last. Swains shall make vows to thee
 yearly, as to Bacchus and Ceres; you shall all
 oblige them to *the performance of their vows*. [*you*
shall put them under an obligation to perform the
vows by hearing their prayers.]

MOP. What presents shall I return thee for
 such verse? For neither do the whispers of the
 southwind when rising, nor the shores beat by
 waves, please me so much, nor rivers which
 thro' stony vallies.

MEN. I will present thee first with this slender
 reed. This taught me, Corydon was fired with
 love to beautiful Alexis; this also taught me
 Whose cattle are these? Is it the flock of Melibœus?

MOP. But thou, Menalcas take this shepherd's
 hook adorned with knots and brass at an equal
 distance, which Antigenes could not obtain when
 he often begged it of me, and even then he
 served my affection.

PASTORAL VI.

SILENUS.

MY *musè*, Thalia, first deigned to divert *herself* in Sicilian verse, nor blushed to dwell in the woods. When I sung of kings and battles, Apollo pulled me by the ear, and admonished me thus; It becometh a shepherd to feed his fat sheep, and sing in a low strain. Now I will play a rural tune on my tender reed, for Varus, you shall have many who will incline to celebrate your praises, and record your dreadful wars. I do not sing without a command; yet if any, *I say*, if any, smitten with fond desire, shall read these *verses* also, Varus, our shrubs and every grove [*myrica signifies wild amarisk*] shall sing of thee. Nor is there any page which pleases Phœbus more than that which hath the name of Varus inscribed upon it. Proceed, ye muses. The youths Chromis and Mnasyllus saw Silenus lying asleep in his cave, having his veins his usual blown up with yesterday's debauch; his garland only, fallen from his head, lay at a distance, and his weighty tankard hung by its worn handle. They approach and put manacles upon him *made* of his own garland; for the fire had often deceived them both with the hope of a song. Ægle joins herself a companion, and approached them who were timorous. Ægle, the fairest of the water-nymphs, paints his brow and temples (he seeing her) with the blood of mulberries. He smiling at the trick, says, Why ty ye these bonds? loose ye, boys. It is sufficient that I could be seen by you. Hear what songs you incline. Ye shall have songs, she shall have another reward. So he begins.

gins. Then, indeed, you might see the Fauns and wild beasts dance in measure. Then the stiff oaks wave their tops. Nor does the hill Parnassus rejoice so much in Phoebus, nor do Rhodope and Ismarus so much admire Orpheus. For he sung how the seeds of earth, of air, of water, and also of pure fire, were driven thro' the spacious void into one body. How from these principles all things took their rise, and the recent globe of the world was consolidated. Then, how the soil began to grow hard, and shut the sea up in its channel, [*Perhaps, by a synecdoche, the author's meaning may be, to separate the ocean from the sea bordering upon Pontus, i. e. from friths or seas less spacious than the ocean.*] and received by degrees the species of things. And how the earth was astonished to see the new sun begin to shine. And how showers fall from the clouds far removed from the earth. When first the woods began to rise, and when animals yet few did stray over unknown mountains. After this he sung of the stones thrown by Pyrrha; of Saturn's reign, the Caucasian birds, and the theft of Prometheus. To these he added at what fountain the sailors called on lost Hylas. How every shore resounded Hylas, Hylas. And how he consoles Pasiphae because of her passion for the snow-white bull, *Pasiphae*, happy if there had never been herds. Ah! wretched young lady, what frenzy seized thee? The Proetides filled the fields with fancied lowing, yet none of them did pursue such embraces of beasts, tho' they feared the plough for their necks, and oft felt for horns in the smooth foreheads. Ah! wretched young lady, thou now art wandering upon the mountains; having his snow-white side supported with the forest hyacinth, ruminates the pale herbs beneath an

ver shading oak, or follows some female of the
 numerous flock. Ye nymphs, Dictæan nymphs,
 shut, shut without delay the glades, [i. e. *the void
 spaces in a wood, saltus nemorum,*] *that we may see*
 if by chance any wandring footsteps of a bull may
 present themselves to our eyes ; perhaps some hei-
 fers may lead him to Gortynian stalls, either en-
 ticed with green grass, or following the herds. Then
 he sings the maid that admired Hesperian apples.
 Next he surrounds Phaeton's sisters with the moss
 of the bitter bark, and he rears tall poplars from
 the ground. Then he sings Gallus wandring at the
 stream of Permessus ; how one of the sister muses
 conducted him to the Aonian mountains, and how
 all the quire of Phœbus rose to the man. How
 the shepherd Linus, having his hair adorned with
 flowers and bitter parsley, addressed him thus in di-
 vine verse. Take, the muses give you this pipe,
 which they gave formerly to the Atræan old
 man, [*Hesiod,*] by playing on which he used to
 bring down the rugged ashes from the mountains ;
 with this sing thou the original of the Grynæan
 grove, that there may be no grove of which Apol-
 lylas may boast more. Why should I tell *how he*
 sung of Scylla the daughter of Nisus, whom fame
 hath related, having her white waist inclosed
 round with barking monsters, to have vexed the
 Dulichian ships, and, alas ! torn the frightened sai-
 lers with sea-dogs. Or how he sung of the me-
 tamorphosed members of Tereus ; what dishes,
 what presents Philomela prepared for him ; with
 what speed he sought the desarts, and with what
 wings, wretched man, he did fly often above the
 palace formerly his own. He sings all that the blest
 Eurotas did hear of old by singing Phœbus, and
 made the laurels learn. The beaten vales *echoing car-*
ry

the sound to the stars, till the evening-star warned to drive the sheep to their folds and count their number, and did rise on the sky unwilling *to have it return so soon.*

PASTORAL VII.

MELIBŒUS.

BY chance Daphnis fate beneath a whispering oak. [*that made a whispering noise by the breezes.*] Corydon and Thyrsis had driven their together in one place. Thyrsis his sheep, Corydon his goats, which had their udders strutted with milk; both flourishing in youth, both Arcadians, matches in singing, and prepared to answer one another, or any who would challenge them. Here, while I fence my tender myrtles from cold, my he-goat, the father of my flock, had strayed from me? And I see Daphnis; as soon as he sees me, he says, Melibœus, come hither; presently thy goats and kids are safe, and if thou hast aught of leisure, rest beneath this shade; thy bullocks of their own accord will come hither thro' the meadows to drink. Here Mincius clothes the green banks with young reeds, and swarms of bees resound from a sacred oak. What should I do more for I had neither Alcippe nor Phyllis at home to well-shut up my lambs new-weaned from milk, and there was a great match between Corydon and Thyrsis, yet I postponed my own business to the play. Then both began to vye in alternate verses the muses inclined that I should remember alter

nate verses. Corydon recited these, Thyrsis those, by turns.

COR. Ye Libethrian nymphs, my delight, either grant me such verses as ye vouchsafed to my Codrus, (he makes verses next to Phoebus,) or, if we all cannot *make such*, my shrill reed shall hang here on this sacred pine.

THYR. Ye Arcadian shepherds, adorn with ivy your rising poet, that the entrails of Codrus may burst with envy; or if he praise him beyond his inclination, [*which they thought tended to fascination, the herb baccar was deemed a counter charm against this*] surround his brows with baccar, [*called by some St. John's wort, or Our Lady's glove,*] lest that ill tongue should hurt the future poet.

COR. Little Mycon offers to thee, Delia, this head of a bristly boar, and the branching horns of the long-living stag. If this *success in hunting* shall be perpetual, thou shalt stand at full length in smooth marble, having thy legs bound with purple buskins.

THYR. Priapus, it is sufficient for thee to expect each year a pail of milk and these cakes. Thou art the keeper of a poor garden. We have made thee of marble for the present, but if an increase of young shall recruit my flock, be thou meat of gold.

COR. Galatea daughter of Nereus, sweeter to me than the thyme of Hybla, whiter than swans, I do more fair than white ivy, come as soon as the well-fed steers shall return to their stalls, if you have any love to your Corydon.

THYR. Yea, may I appear more bitter to thee than Sardinian herbs, more rough than gorse, more vile than sea-weed cast upon the shore, if this day alter not longer to me than the whole year. Ye
fed

fed bullocks, go home, go, if you have any shame.

COR. Ye mossy founts, and grass more soft than sleep, and green Arbutus which covers you with her thin shade, defend the cattle from the solstice. Now scorching heat comes, now the buds swell on the fruitful rendril.

THYR. Here is an hearth and pitchy torches; here always a great fire, and lintels black with continual smoke. Here we regard the cold of the north-wind, just as much as the wolf either the number of the sheep, or torrent streams the banks.

COR. Here stand junipers and rough chesnuts; apples ly every where strewed under their trees. Now, now all things smile; but if fair Alexis depart from these mountains, you'll see the very rivers dry.

THYR. The field is scorched, and the herbage withering thirsteth by the vicious air; Bacchus envies [*denies*] the viny shades to the hills. Every grove will grow green at the coming of Phyllis, and abundance of air shall descend in fertile showers.

COR. The poplar is most dear to Hercules, the vine to Bacchus, the myrtle to beautiful Venus, his own laurels to Phoebus, Phyllis loves the hazels; while Phyllis shall love them, neither shall the myrtle excel the hazels, nor the laurels of Apollo.

THYR. The ash is fairest in woods, the pine in gardens, the poplar near rivers, the fir on high mountains; yet, lovely Lycidas, if you visit me oftner, the ash in woods shall yield to thee, and the pine in gardens.

MEL. These things I remember, and that Thyrsis over-matched did contend in vain; from that time Corydon is a Corydon for me. [i. e. *esteemed*]

esteemed him most. The reasons why Corydon is pronounced victor, according to Ruæus and others, are, Corydon is generous and good-natured, Thyrsis malicious; Corydon invokes the chaste Diana, Thyrsis the obscene Priapus; Corydon is smooth, gentle and contented, Thyrsis rough, discontented, and full of imprecations.]

PASTORAL VIII.

PHARMACEUTRIA.

WE will repeat the song of the shepherds Damon and Alphesibœus, whom the heifers, unmindful of their pasture, did admire, at whose verses the lynxes stood amazed, and rivers not having changed their courses. [i. e. *they followed the poets, and stopt at the place where they stood.*] Let us repeat the song of Damon and Alphesibœus. Thou, [great Pollio favour my attempt] whether thou at present dost pass the rocks of wide Tiber, or sailest amongst the coasts of the Illyrian waves. Shall ever that day come, when I shall be allowed to record thy deeds? Will ever that day dawn that I may diffuse thro' all the world thy verses, which alone deserve the Sophoclean bust! [Pollio was a writer of tragedy, to which this poem belonged.] I have begun, and my labours will end with thee. Accept these verses begun at thy command, and let this ivy creep round thy temples amongst thy triumphant laurels. The shade of night had scarce departed from the earth, when the dew on the tender grass is most grateful to the cattle, Damon, leaning to a round stone, thus began.

D

DAM.

DAM. Arise, Lucifer, and ushering in bring us a fair day, while I complain, being deceived by the ill-requited love of Nisa, *sworn to be my wife*, and dying address the gods in the last hour of my life (tho' it hath availed me nothing by having them my witnesses.) My pipe, begin with me Mænalian strains.

Mænalus hath always both a shrill-sounding wood and murmuring pines; he always hears the loves of shepherds, and Pan, who first suffered the reeds to be unemployed. My pipe, begin with me Mænalian verses.

Nisa is given to Mopsus. What may not we lovers hope for? Griffins shall now be matched with horses; and in the next succeeding age timorous deer shall come to watering with dogs. Mopsus, new torches; thy bride is brought home to the Bridegroom, strew thy nuts; the evening-star leave Oeta for thy sake. [*i. e. sets in thy favours, because this star is welcome to new-married persons.*] My pipe, begin with me Mænalian verses.

O spouse of a worthy man, while you disdain all others, and while you hate my pipe, my goal, my rough eye-brows, and my long beard, nor believest that any god regards the actions of mortals. My pipe, begin with me Mænalian verses.

I saw thee gathering apples wet with dew, while you was little, with your mother, in our hedge (I was your guide.) I just then began to advance in my twelfth year. [*Mr. Brinsly explains alter undecimo thus, the other, viz. the second year from eleven had even then taken me. I then began to thirteen years of age.*] At this time I could touch the tender boughs from the ground. How did I look? How did I perish? How did that fatal horror carry me away. [*i. e. how was I distracted*]

with love.] My pipe, begin with me Mænalian verses.

Now I know what love is. Ismarus or Rhodope, or the Garamantes, who dwell on the extremities of the earth, bore him among hard rocks, a boy not of our kind nor blood. My pipe, begin with me Mænalian verses.

Cruel love taught the mother to embrue [*pollute, or stain*] her hands in the blood of her own children. Thou mother [*viz. Medea*] wast likewise cruel. Was the mother more cruel, or that boy more impious? Impious the boy, the mother cruel too. My pipe, begin with me Mænalian verses.

Now let even the wolf flee from the sheep of his own accord; hard oaks bear golden apples; the elder bloom with narcissus; ramarisks sweat fat amber from their barks; and let the owls contend *singing* with swans. Let Tityrus become Orpheus; Orpheus in the woods; Arion amongst the dolphins. My pipe, begin with me Mænalian verses.

Let all things be turned into deep sea; farewell, woods. I will throw myself headlong from the tower [*top*] of yon aerial mountain into the waves. Take this last gift of a dying man. My pipe, cease now, cease from Mænalian strains.

Thus Damon. Ye muses, rehearse what Alphesibæus answered; we all cannot do all things. *i. e. without your assistance I the poet cannot equal what Damon sung; or, every one in his own way. Alphesibæus could not sing as Damon did, nor Damon do what Alphesibæus.*

ALPH. Bring waters, and bind these altars round with a soft fillet, and burn fat vervain and *strongest* frankincense, that I may try to turn

turn the brain of him I love. [*of my husband, or, of him I desire for my husband.*] with magick rites. Nothing is wanting here but charms. My charms, bring Daphnis home from the town, bring Daphnis.

Charms can even draw down the moon from heaven: Circe transformed the companions of Ulysses with charms: the cold snake in the meadows is burnt with charms. My charms, bring Daphnis home from the town, bring Daphnis.

First, I bind these three lists round thee, of three differing colours; thrice I lead thy image round these altars; the god loves odd numbers. My charms, bring Daphnis home from the town, bring Daphnis.

Amaryllis, knit three colours in three knots, Amaryllis, knit them presently, and say, I tie the knots of Venus. My charms, bring Daphnis home from the town, bring Daphnis.

As this clay doth harden, and this wax grows soft by the same fire, so may Daphnis by my love. [*i. e. so let him be hardened to others, and soft to me.*] Sprinkle this cake, [*strew it about. Mola signifies a cake made of meal and salt.*] and burn these brittle bay-boughs with brimstone. Cruel Daphnis burns me. And burn this laurel on Daphnis. [*i. e. on his image; or perhaps it may signify, uro Daphnim in hoc lauro, magically burning Daphnis by burning his image.*] My charms, bring Daphnis home from the town, bring Daphnis.

May such love seize Daphnis, as when a heifer fatigued by seeking the bull thro' woods and high groves, lost to herself, [*faint and undone,*] she lies down near the stream of a river on the green sedge, nor minds to return late at night. [*or, to depart from the late night, as it were to avoid it.*] May such love

love seize Daphnis, nor I take care to cure him.
My charms, bring Daphnis home from the town,
bring Daphnis.

That faithless man left me these garments long
ago, as dear pledges of himself, which, O earth,
I now commit to thee even beneath my threshhold.
These pawns owe Daphnis. [i. e. *They are bound
to bring him back.*] My charms, bring Daph-
nis home from the town, bring Daphnis.

Moeris himself gave me these herbs and these
poisons culled in Pontus; very many such grow
in Pontus. By these I have oft seen Moeris trans-
formed into a wolf, and hide himself in woods,
and ghosts frequently to rise out of the deepest
graves, and him transfer sown corns to different
fields. My charms, bring Daphnis home from
the town, bring Daphnis.

Amaryllis, bring forth these ashes and throw
them over thy head into the river; look not back.
With these I will attack Daphnis; nought he re-
gards the gods, nought my charms. My charms,
bring Daphnis home from the town, bring Daphnis.

Behold, the very ashes of their own accord have
caught hold of the altars with trembling flames,
whilst I delay to carry them hence. May this be
suspicious. I know not surely what it is, and
dylax barks in the entrance. May we believe it?
Daph- do they who love feign dreams to themselves.
Daph- Cease, Daphnis comes from town, cease now,
my charms.

PASTORAL IX.

LYCIDAS and MOERIS.

LYCIDAS.

MOERIS, whether goest thou? Is it to town
to which this road leads us?

MOER. O Lycidas, we have lived so long, that
a stranger, which we never feared, possessor of our
little farm, should say, Ye old farmers, be gone,
these lands are mine. Now, we being overcome
and disconsolate, since fortune turns all things
upside down, send these kids (on which may he
choak) to him.

LYC. Why, sure I heard that your Menalcas
had saved all, by his verses, from that place where
the hills begin to lessen, and sloap from the top
by an easy declivity, down to the water and the
broken tops of the old beech.

MOER. Thou heardst it, and there was such a
report; but, Lycidas, our verses prevail as much
among martial darts, as they say the doves of
Chaonia do when the eagle comes. But unless the
unlucky crow had warned me from an hollow
holm, to put an end to this new strife at any rate,
neither this thy Moeris, [*or, thy Mæris here,*] nor
Menalcas himself had been alive.

LYC. Alas! could such a crime fall into any
man's mind? [*could any think to perpetrate such a*
crime?] Alas! was Menalcas, thy solace, almost
snatched away from us with thyself? Who should
sing of the nymphs? who strew the ground with
pleasant flowers? or who cover the fountains with
a shade of green boughs? or [*who should sing*
these verses which I silently stole from thee of late

when

when you went to Amaryllis our delight? Tityrus, feed my goats till I return, the way is short; and drive them to the water, Tityrus, when they are fed; and while you drive them, beware lest you meet the he-goat; he butts with his horn.

MOER. Yea, who should sing these which he sung to Varus, not as yet perfect, [i. e. *uncorrect, not finished.*] Varus, the singing swans shall raise thy name aloft to the stars, if Mantua shall still be reserved for us; Mantua, alas! too near miserable Cremona.

LYC. So may thy swarms fly from Cyrnean flocks; so may thy kine well fed with trefoil flowers distend their dugs. Begin, if thou hast any thing; the muses have made me a poet too; I have also verses. The shepherds too call me a poet, but I am not ready to believe them; for I do not seem to indite as yet any thing worthy of the ear of Varus or of Cinna's ear, but to gaggle like a goose among the tuneful swans.

MOER. I do that indeed; [*viz. I prepare myself to sing.*] and, being silent, Lycidas, I am musing in my mind, if I could remember it; 'tis the vulgar verse. [*viz. that which he writes concerning Galatea.*] Come hither, Galatea. What sport is there in the waves? [*What delight can the sea give?*] nowhere is the purple spring; the earth pours forth various flowers round the rivers. Here the white poplar hangs over the grotto, and limber trees wave gentle shades. Come hither, let the waves beat the shores.

LYC. What are those which I heard thee sing with one in a clear night? [*Mr. Brinsley renders Ovid thus, What sayst thou of those songs, &c.*] I remember the tune, if I could recollect the words.

MOER.

MOER. Daphnis, why dost thou admire [*observe so carefully*] the rising of the antient signs. Behold, the star of Dionæan Cæsar hath advanced; [*i. e. July is begun;*] a star by which the stalks rejoice in their grain, and under which the grape gathers its colour on warm hills. Daphnis, graft thy pear-trees; thy posterity shall crop thy fruit. Age impairerth [*fert for aufert*] all things, even the mind itself. I remember, when a boy, I often spent long days in singing. [*condemning long soles, to hide or bury long suns with singing. i. e. he sung till the sun was down.*] Now I have forgot so many verses; also my voice itself doth now flee, Moeris. [*i. e. I am bereft of my voice.*] Wolves have seen Moeris first. [*It was a notice that if the wolf saw the shepherd first, the voice of the latter was taken away for the present, that he could not cry; but if the shepherd spied him first, the wolf was frightened and weakned. Whence arose the proverb Lupus est in fabula; when one comes in, of whom we are discoursing, we are silent.*] But Menalcas shall rehearse oft enough these verses to you.

LYC. By long excuses you whet my appetite the more; and now every sea being calm is silent, and behold all the blasts of the murmuring winds have fallen [*are hushed*] on thy account; [*i. e. that we may hear thee sing;*] besides, from hence we have but half way to Mantua, for the tomb of Bianor begins to appear. Here, where shepherds strip plenty of leaves from their boughs, Moeris, let us sing here. Here lay down thy kids; yet we shall reach the town; or, if we fear lest night gather rain before we reach it, yet let us go singing constantly (our journey will hurt us less) that we go singing, I will ease thee of this burden.

MOER

MOER. Boy, leave off talking, and let us do what we have in hand. [*let us mind our present business.*] We will sing verses better when Menalcas himself shall arrive.

PASTORAL X.

GALLUS.

A Rethusa, grant me this last labour. [*aid me in finishing this my last Pastoral.*] A few verses must be sung to my Gallus, but such as Lycobates herself may read. Who can deny verses to Gallus? So may briny Doris never mix her waters with thine, when thou shalt glide beneath Sionian waves. Begin, let us relate the solicitous labours of Gallus, while the flat-nosed kids crop the tender browze. We sing not to the deaf; the groves answer all the sounds. Ye nymphs, what groves, what lawns detained you when Gallus perished by such a love as was unworthy of him? for neither any of the tops of Parnassus, nor Olympus, nor Aonian Aganippe, stayed you. Even the laurels, even the low shrubs, mourned for him. So piny Mænalus, and the stones of cold Lycæus, wept over him lying beneath a desert rock. No ways the sheep stand round him, nor are they named of us. [*they sympathize with our woe.*] Heavenly poet, blush not thou to tend cattle; even Adonis grazed sheep along the rivers side. The herdsman, and tardy neat-herds, and Menalcas, came to him from gathering winter-fores; all ask, Whence this thy love? Apollo he; he says, Gallus, why art thou mad? thy
E
care,

care, Lycoris, follows another, both thro' snows and rough camps. Silvanus also came with the rural honour of his head, [i. e. *crowned with a garland, which is his rural honour*] shaking flourishing boughs and big lillies. [ferula signifies fennel.] Pan the god of Arcadia came, whom we ourselves have seen red with the blood of elderberries and vermillion. He says, Shall there be any end or measure? Love heeds not such *grief and sorrow*. Cruel love is not satisfied with tears, nor grass with streams, nor bees with trifol-flowers, nor goats with browse. But he pensive says, yet, ye Arcadians shall sing these *tears* on your hills; ye Arcadians only skilled in song. O how softly then shall my bones rest, if your pipe shall record my loves in future times? O! I wish I had been one of you, either a keeper of a flock, or gatherer of ripe grapes. [i. e. *a vine-dresser*.] Sure, whether Phyllis or Amyntas were my desire, or any other my love, (what then tho' Amyntas be black, violets and hyacinths are black) he should repose himself with me amidst the willows under the limber vine. Phyllis should gather garlands for me, and Amyntas sing. Lycoris, here are cool springs, here are soft meadows, here is a grove; here I could consume my very life with thee. Now frentick love detains me amidst darts and enemies, under the arms of cruel Mars. Thou art cruel! far from thy native country, (I wish I could not believe it) alone, without me, dost only see the Alpin snows, and the cold of the Rhine. Ah! let not the sharp ice cut thy tender feet. I'll go and play, with the reed of a Sicilian shepherd, these songs which I have composed in Chalcidian verse. I am determined rather to endure *any pain* in the woods, among the

dens of wild beasts, *rather than this*, and to inscribe my love on the tender bark of trees; they will grow, and *so* my love shall grow. Meanwhile I will view Mænalus joined in company with the woodland nymphs, [*lustrare signifies likewise to range over,*] or hunt the fierce boars. No frosts shall hinder me from surrounding Parthenian thickets with my dogs. Now methinks I go over rocks, and thro' sounding woods. I please my self to shoot Cretian shafts from a Parthian bow, as if this were a medicine for my frentick pain, or that god *Cupid* could learn to become gentle by the woes of mankind. And now the nymphs can please me again no more, nor even my verses; ye very woods, again, farewell. Our toils cannot change that *god*, altho' we should drink of the Heber amidst the colds, and endure the Sithonian snows of showery winter; or should tend the sheep of the Ethiopians beneath the tropick of the Crab, when the dying bark is scorched on the tall elm. Love conquers all, and we must yield to love. Ye muses, it shall now suffice that your poet has sung these verses, while he sat and wove a basket of flight offers. Ye shall make these verses most acceptable to Gallus, the love of whom grows in me every hour, so much as the green alder spreads itself in the new spring. [*or, in the beginning of the spring, according to some.*] Let us rise, the shade uses to be noxious to such who sing; the shade of juniper is noxious; the shade too hurts the fruit. Go, my fed goats, the evening comes, go home.

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THE FIRST
Book of *Georgicks*.

MEcænas, now I will begin to sing what makes a plentiful crop ; beneath what stars we ought to turn the earth, [*i. e. when to till the ground,*] and to join vines to elms ; what the care of lowing herds, what culture is necessary for having cattle ; and what experience for the frugal bees. O ye brightest luminaries of the world, who lead the year sliding thro' the sky, Bacchus and fostering Ceres ; if, by your indulgence, the earth changed Chaonian mast for nourishing corn, and mingled Acheloian cups with wine newly discovered : and ye Fauns, deities propitious to rural swains ; ye Fauns and silvan nymphs, at once be favourably present ; I sing your gifts. And thou, Neptune, to whom the recent earth brought forth a sprightly steed, when struck with thy great trident ; and thou cultivator of the woods, for whom three hundred snow-white steers crop the fertile bushes of Cea. Tegeæan Pan thyself protector of sheep, if you have any care of your Mænalus, be favourably present, leaving thy native grove, and the woods of Lycæus. And thou, Minerva, inventrix of the olive, and thou, boy, discoverer of the crooked plough, and Silvanus bearing a tender cypress torn up from its roots ; and all ye gods and goddesses who employ
your

your care to guard the earth, and who perpetuate the renewed fruits *thereof* by their different seeds and who do pour down from heaven large showers on these when sown. And thou chiefly, Caesar, about whom it is uncertain at present what the determination of the gods shall be, [i. e. *how they will determine thy state,*] whether thou shalt preside over cities, or rather chuse the care [em-pire] of the spacious earth, and whether the huge globe shall receive thee as the donor of corns, and sovereign of seasons, surrounding [crowning] thy head with thy mother's myrtle; or if thou shalt come to them the god of the immense sea, and the mariners shall worship thy deity alone, and outmost Thule serve thee, and Tethys buy thee for her son in law with *the dowry* of all her waves; or if you will add yourself a new constellation to the sky in months, where a space between Erigone, and the claws of Scorpio following next to her, is vacant. Burning Scorpio himself already contracts his arm for thee, and leaves more than his just proportion of the sky. Whatever thou shalt be, (for neither hell hope to enjoy thee for her king, nor so dire a desire of empire enter thy mind, although Greece admires the Elysian fields, and Proserpine doth not care to follow her mother by whom she is sought back) give me an easy course, favour my bold attempt, and pitying swains ignorant of the way, enter it along with me, and even at present use thyself to be invoked by prayers.

In the new spring, when the cold moisture [i. e. *the snow*] melts upon the white mountains, and the putrid glebe dissolves by the western winds, even then let my bull begin to groan by the plough pressed deep in the earth, and my share to glit being rubbed by the furrow. That land [see]

sometimes hath this signification] at length answers
the hopes of the greedy hind, which hath twice felt
 the sun and twice the cold; immense harvests burst
 his barns. But before we cut an unknown field
 with our coulter, let it be our care first to learn
 the winds, the various temper of the sky, *[cli-*
mate,] and the proper culture and the nature of
 soils, and what each region can bear, and what
 each refuses to produce. Here corn, there grapes
 grow more happily; elsewhere the fruits of trees,
 and grass unbidden, *[without manuring,]* do flourish.
 Don't you see how Tmolus sends us saffron
 flowers, India ivory, the soft Sebæans their incense,
 the naked Chalybes iron, and Pontus beaver-stones
 which have an ill smell, Epirus the palms of Ele-
 mares. *[i. e. these mares which gain in the o-*
lympick courses.] Nature imposed these laws and
 eternal conditions on sundry places, immediately
 from that time *[ever since]* Deucalion first threw
 stones behind him in the desert world, whence men,
 hardy species, were born. Observe then, im-
 mediately from the first months of the year, let
 your strong oxen turn up the rich soil, and let dust-
 summer bake with its maturest suns the clods
 lying exposed to them; but if your land is not fer-
 tile, it will suffice to fallow it with a thin furrow
 under Arcturus. *[in September or October.]* There,
 the weeds molest the sturdy grain; *[there, i. e.*
the fertile soil;] here, *[that is, in the barren land]*
 the little moisture desert the barren sand.
 You shall also permit the late-shorn fallows to rest
 alternate years, and the field to harden with
 fogs. *[or what we call fog.]* This is an excellent di-
 scision; another like this is, to begin to plow when
 the mole throws up many hills. Or, the season
 being changed, thou shalt sow there yellow wheat,
 from

from whence you have first removed rank pulse with trembling pods, or the small grain of vetches, and the brittle stalks and rustling wood of bitter lupines; for flax and oats burn the field, and poppies which occasion oblivious sleep. Yet the labour is easy by alternate years; only disdain not to give your dry soils a hearty fill of fat dung, nor to throw sordid ashes upon your impoverished fields. So also the land doth rest by change of grain; neither is there no advantage [i. e. *there is an advantage*] in the mean time by unplowed ground. Oft too it has been gainful to set barren fields on fire, and to burn light straw [*By this I mean any grass, herbs, or stalks of shrubs.*] with crackling flames; [*I make a difference, you see, in my version betwixt incendere and urere, because to burn ground, so as to reduce it to white ashes, causes the unctuous juices evaporate, which is detrimental.*] whether from thence the earth receives secret strength and rich nourishment, or every vice is boiled out of it by the fire, and the useless juices sweat out; or whether the same heat opens new ways, and relaxes the hidden pores, by which moisture may come to the new-sprung stalks; or that it hardens more, and closes the gaping veins lest subtil showers should enter in such a quantity as to do hurt, or the too vehement force of the parching sun, or the peircing cold of Boreas, should dry it. He likewise helps his tilth much, who breaks the idle clods with rakes, and drags osier-harrows alongst it; nor doth yellow Ceres look in vain down from the high heaven upon him; and on him who having turned over his plain and flat field, raises the tumors of the furrows high, which afterwards he breaks thro' with his plough turned a-cross, and frequently exercises the earth, and commands his arable

arable grounds. Ye farmers, pray for moist sum-
 mers and fair winters. Corn is most prolifick af-
 ter winter's dust, and the fields are fertile. Mysia
 boasts herself so much in no culture, and Gargarus
 itself admires its own harvests. What shall I say
 of him, who, having sown seed, immediately pro-
 ceeds to harrow his land, and crushes the clods of
 barren earth; [*arena, sand, because sand alone is
 barren in the earth naturally;*] then brings running
 water and sequacious rills to his grain when sown;
 and when the parched earth is burnt up, the herbs
 withering, without delay entices water [*by mak-
 ing trenches wherein it may run*] from the brow of a
 steep mountain? it falling makes a hoarse murmur-
 ing sound amongst the slippery stones, and brings
 the scorched land to a due temperament with its
 streams. What shall I say of him, who, lest the
 stalk should fall down by the weight of the ears,
 leads cattle upon the luxuriant corn *while* in the
 tender blade, when that which was sown first be-
 comes equal in height to the furrows, and who
 leads off the water collected in a flank, [*the flag-
 ging water,*] from the earth which drinks it in
 greedily? Chiefly when swelling floods overflow
 their banks, in uncertain months, [*i. e. in spring
 and autumn,*] and settle upon every field far and
 near with slime wherewith they cover them; from
 hence hollow dykes sweat with tepid moisture.
 It, (tho' the toil of men and oxen hath experienc-
 ed all these ills in labouring the ground) besides the
 schievous goose and Strymonian cranes, and en-
 tire with its bitter roots, do harm, and the shade is
 fruitful. Father Jove himself inclined that the way
 cultivating should not be easy; he first by art stir-
 up [*plowed*] fields, and whetted the judgment of
 mankind with cares, not permitting his reign to
 F become

become unactive by a stupid lethargy. Before Jove *was king*, no ploughmen subdued the ground; nor was it lawful to set land-marks, or measure a field by *placing* a march. All things lay in common, and the earth herself brought forth more liberally, none compelling her. He added baneful poison to black serpents, and commanded wolves to prey, and the sea to toss, and shook the honey from trees, and removed fire *from human race*, [i. e. *he concealed it in stones, which Prometheus afterwards stole, judging it necessary for man's use,*] and repressed the wine running every where in streams; that practice or need might strike out various arts gradually by study, and seek the blade of corn in furrows, and strike latent fire out of the veins of flint. Then rivers first felt hollowed alders; the sailor then first gave numbers and names to the stars, *calling them Pleiades, Hyades, and the bright Rear of Lycaon*. Then it was invented to inangle wild beasts in toils, and deceive *fowls* with birdlime, and surround woods with hounds. One now beats a broad river with a casting-net wading deep; another drags wet twine along in the sea. Then rigid iron and the plate of the grating saw; (for the first *inhabitants of the earth* discovered the splitting wood with wedges) then various arts ensued. Great toil and pressing penury in hard circumstances, overcame all things. Ceres first taught mortals to till the earth with the share, when now mast and cherries of the sacred woods were wanting, and Dodona denied food. Immediately labour is added to corn, that noxious rust of *mildews* should eat the stalks, and the useless thistle should rise with prickles in corn fields; the corns die, a prickly wood succeeds, and brambles, and the unlucky darnel and wild oat domineer

domineer thro' fat well-cultivated fields. Unless then you work the ground with assiduous rakes and harrows, and fright away the birds with noise, and lop the shades of the dusky field with a pruner, and invoke *heaven* for rain with vows, alas! in vain you shall behold the great store of other men, and satisfy your hunger in woods by a shaken oak.

We must also tell what instruments are used by hardy rusticks, without which seeds could neither be sown nor rise. First the share, and the heavy timber of the crooked plough, and the slow-rolling wains of mother Ceres; flails and sledges, and harrows of unweildy weight; the homely implements made of osiers, the invention of Celeus, hurdles of the arbut-tree, and the mystick van of Bacchus; all which, with long forethought being provided, you shall lay up, if glory deservedly acquired of the innocent country wait thee. [*or, the country inhabited by the gods, or, the most happy country.*] In the first place, the elm bended with mighty force in the woods, is bowed in copses, and receives the figure of the crooked plough, to this the beam, eight feet in length, is joined; at the extremity thereof two ears and broad dentals. But the light linden first and lofty beech are cut down for the yoke and the plough-tail, which may turn about the wheels that sink deepest behind; and smoke tries the wood hung above the fire. I can recite many rules of the ancients to you, if you are not unwilling, and it be uneasy to you to learn these mean cares. Chiefly your threshing-floor is to be smoothed with a huge roller, and wrought with your hand, [*i. e. with the spade in your hand,*] and consolidated with binding chalk, lest grass spring up, or overcome with drought it cleave; then various pests [*foes*] do hurr. Oft the little mouse nests under ground, and makes her granaries; or blind

blind moles digg their holes, and the toad is found in cayerns, and vast numbers of vermine which the earth produces ; and the weasel wastes great heaps of corn, and the aunt fearing want in old age. Besides, observe when many almonds clothe themselves with flowers in the woods, and bend their fragrant boughs ; if fruit prevail, in like manner thy crop of corn will follow, and many sheaves for the threshing-floor will be brought in after great heat. But if the shade exceeds *the blooms or fruit* by luxuriance of leaves, [*or, if the shade be thick,*] in vain thy floor [*thy flail*] shall bear straw loaded with chaff. I indeed have seen many before they sow medicate their seed, [*seren-tes, sowers, because seed ought to be steeped immediately before sowing,*] and sprinkle it thoroughly with nitre and the black lees of oyl, that the grain might be bigger in the fallacious shell. And tho' seed was moistened, being hastily prepared over a gentle fire, I have seen that which they have taken long time in chusing, and tried with much pains, yet degenerate, unless human industry yearly called the largest grain of every kind. Thus all things by the fates still run to the worse, and gradually decaying are carried backwards ; just like him, who with great difficulty forces his boat against the opposing stream, if by chance he slacks his arms, the force of the current drives him with headlong haste down the impetuous river. Besides, the stars of Arcturus, the days of *the rising* of the Kids and bright Dragon, are as much to be observed by us, as by those who, being bound homewards thro' tempestuous seas, do try the Hellespont and straits of oyster-breeding Abidos. When Libra makes the hours of the day and night equal, and parts the globe betwixt light and

and darkneſs, [*this is the autumnal equinox,*] ye farmers, work your bulls, ſow barley in the fields, even towards the end of untractable winter. It is alſo time to hide in furrows lint-ſeed and Cerealian poppies, and high time to ply the ploughs, while you may do ſo with a dry ſoil, while rains are ſuſpended. The ſeed-time for beans is in the ſpring; then, Median flower, the crumbling furrows receive thee too, [*Some render medica, clover, others cinquefoil, and la lucern.*] and the annual care of the millet comes. When the ſhining bull opens the year with golden horns, and the dog yielding to the backward ſtar [*the ſhip*] ſets. But if you labour the ground for a wheat-harveſt and robuſt grain, and you be intent upon the ears of bread-corn alone, firſt let the morning Pleiades be hid, [*about the end of October,*] and let the Gnoſſian bright Diadem depart *from the ſun*, before you commit due ſeed to the ground, and haſten to truſt the hope of the year to the unwilling earth. [*properes, haſten. In England ſometimes I have known wheat ſown in Auguſt.*] Many have begun before the ſetting of Maia, but the expected harveſt has deceived them with empty ears. But if you ſow vetches and the vile pulſe, and do not deſpiſe the care of the Ægyptian lentil, Bootes falling downwards gives you ſigns not obſcure. [*Pliny gives a threefold ſeed-time; the firſt in December, the ſecond in January, the third in March.*] Begin and proceed in ſowing to the middle froſts. [*to the middle of winter.*] For this purpoſe the golden ſun rules the globe meaſured out into ſeveral parts, thro' twelve conſtellations of the world. Five zones poſſeſs the heavens, of which one is always red by the bright ſun, and always torrid by his fire about it; two on the extremity of the globe, one on the left and

and another on the right, are drawn congealed with green ice and black showers. Betwixt these and the midst two are given to weary mortals, by the munificence of the gods, and a way is cut cross *the limits of both*, thro' which the order of the signs might roll in an oblique course. As the elevated globe rises towards Scythia and Riphæan hills, so it is depressed inclining to the south of Africk. This pole to us is still sublime, but black Styx and the infernal Manes see that beneath their feet. Here the huge Dragon with sinuous folds glides around, and flows betwixt the two bears like a river; the bears which dread to tinge themselves in the waters of the ocean. There, as they say, uninterrupted night is always silent, and thick darkness brooding on all the ground, or the morning returns from us, and brings the day back *to that climate*, and when the orient sun breathes on us early with his panting steeds, there red Vesper lights the stars when it is late. From hence we may learn beforehand *to know the approach of tempests* in uncertain seasons; by these the time of reaping and sowing, and when 'tis fit to beat the faithless sea with oars, when to launch out armed fleets, or to fell the seasoned pine in woods. Nor in vain do we carefully observe the risings and settings of the stars, and the year equally divided by four different seasons. If at any time the cold rain confines the farmer at home, there are many things to be provided which should be hastened till the sky grow serene. The ploughman sharpens the hard point of his blunt share, he hollows trees for boats, marks his sheep, or measures his heaps of corn; others point their stakes and double spike forks, and prepare offers to bind the flexile vine. Now a slight basket is woven with rubean

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ker; now dry your grain with fire; now grind it with a *marble* stone. Justice and the laws permit to do some things even on holy-days. No religion hath forbidden to drain your fields, to hedge your corn, to lay snares for birds, to fire brambles, and to plunge your flock of bleating *sheep* in healthful streams. Oft the driver of the sluggish ass loads his ribs with oyl or vile [*cheap*] apples, and returning home brings with him a dentured mill-stone, or a mass of black pitch from the town. The moon herself hath given various days lucky for work, *ranged* in a certain order. Shun the fifth; then pale Pluto and the furies were born; then the earth, by a horrible birth, brought forth Coeus, Japetus and cruel Typhoeus, whose leagued brothers to overturn heaven. Thrice they essayed to heave Offa on Pelion, and to roll woody Olympus on Offa; thrice father Jove struck down the mountains, which they had piled up, with a thunder-bolt. Next to the tenth the seventh is lucky, both to plant vines and to break new-yoked steers, and to add woof to webs. The ninth is good for flight, [*or, a journey,*] adverse to theft. Many things succeed better in the cold night, or when the morning bedews the earth at the rising of the sun. By night light [*dry*] stubble and parched meadows are mown better; moderate moisture is never wanting in the night. One watches late at the light of winter fires, and sharpens torches with a sharp knife. [*i. e. he splits wood for torches.*] Meanwhile his spouse, easing her tedious toil with a song, whirls her whistling shuttle thro' the web, or boils on the fire the juice of sweet must, and skims with leaves the liquor of the trembling caldron. [*i. e. the trembling or boiling liquor in the caldron.*] But yellow
[ripe]

[ripe] corn is reaped in the heat of mid-day, and the threshing-floor beats out the scorched grain in the heat of mid-day. Plow naked, sow naked, the winter is lazy to the hind. [i. e. *they may indulge themselves in rest and ease in the winter-season; the principal time for action is the summer, this being the season fit for fallowing, &c.*] Labourers enjoy their store almost all the time of cold weather, and jovial when met they take care to make mutual feasts; genial winter invites to these, and relaxes their cares. As weather-beaten [or, laden] vessels when they have now touched their port, and the jolly sailors have crowned their sterns with garlands. But yet then is the time to strip mast from oaks, and berries from laurels, and the olive, and the spoils of bloody myrtles. Then 'tis time to set gins for cranes, and toils for stags, and to hunt the long-eared hare; then 'tis time for thee, whirling round the flaxen thongs of the Balearian sling, to shoot the doe, while snow lies deep, and while rivers push down cakes of ice. [trudunt glaciem, put forth ice. I think this a more natural signification, and is favoured by Lauderdale, yet Dryden and others are for the former.]

Why should I treat of the tempests and stars of autumn, and what are to be provided by hinds, [vigilanda, what are to be watched, i. e. must be carefully foreseen, so that your work may be dispatched in time, that you may not be in danger,] when now the day is shorter, and the heat is abated, or when showery spring hastens to its period, when the ears of corn in the fields wave, trembling with the wind, and when the milky grains swell on the green stalk. Oft, when the farmer hath brought the reaper to his yellow fields, and bound his shaves with brittle straw, I have seen all the struggling winds engage

at once, which tore up his full-eared corn by the very roots, tossing it in the air ; thus a storm would drive the straw and light stubble with a dark whirlwind. [i. e. *a whirlwind accompanied with a storm which makes darkness.*] Oft also immense continued showers of rain fall down from heaven, and clouds gathered from the sea [*ex alto may signify likewise in the heaven*] brew the black storm with dusky showers. The lofty sky comes rushing down, and drowns the rich crop and labours of the oxen ; with vast rains the dykes are filled, the hollow rivers swell with a *roaring* sound, and the ocean ferments in the friths tossed by the winds. Jupiter himself amidst the night of clouds throws lightning with his red right-hand, by which motion the huge earth trembles, wild beasts flee, and humble fear prostrates the minds of men over the whole world. He strikes with his flaming bolts Athos, Rhodope, or high Ceraunia. The winds redouble, the showers are most thick ; now the woods, now the shores roar by the great wind. Thou fearing this, observe the months and stars of heaven, whether the cold planet of Saturn takes its course, *and* in what orbs of heaven the star Cyllenius doth rove. Principally worship the gods, and bring annual offerings to great Ceres, performing your rites upon the verdant grass, at [*towards*] the latter end of winter, and the spring being now serene ; then the lambs are fat, and wines are most soft ; [*luscious* ;] then sleep is sweet, and shades are thick on the mountains. Let the rustick youth adore thee, Ceres, to whom do thou mingle honey with milk and gentle wines, and let the propitious victim go thrice round the new-sown grain, which [*victim*] let all the choir and triumphing neighbours attend, and invite Ceres beneath their roofs with a shout,

nor let any put his sickle to the ripe corn, till surrounding his temples with twisted *twigs* of oak, he lead up uncouth dances, and sing verses in honour of Ceres.

That we may learn to *foreknow*, by sure prognosticks, the heats, rains, and winds which bring cold along with them, father Jove himself ordained what the monthly moon should advise; by what sign the south-wind should fall, and that the swains observing should confine their cattle near their stalls, [*or, folds.*] When winds are rising, immediately the tossing sea begins to swell, or a dry noise to be heard in the high mountains, or shores resounding at a great distance to be confused, and the murmuring of the woods begins to be frequent; even then the waves with difficulty abstain from the crooked ships, when the swift-winged cormorants fly from the middle of the sea, and send their cries to the shores; and when the sea gulls sport upon the sand, and the heron deserts her well-known fens, and flies [*soars*] above the high clouds. Oft too, when wind impends, you shall behold stars glide headlong from heaven, and long streaks of fire behind stream brightly thro' the shade of night; oft light chaff, and leaves fallen from trees, whirl round, or feathers play swimming on the water. But when lightnings flash from the quarter of fierce Bo-reas, and the house of Eurys and Zephyrus thunders, [*i. e. when it thunders from east or west,*] the whole country swims with full ditches, and every mariner on the sea furls his humid sails. Rain never did hurt any unwarmed; either the aerial cranes fly it, when rising from the lowest vales; or the heifer looking up to the heaven snuffed up the gales of wind in her broad nostrils; or the prattling swallow did fly frequently round the lakes; or

frogs

frogs croak out their ancient complaints in mud. Oft the ant digging a narrow path carries her eggs from her secret cell, and the great bow drinks the sea; [i. e. *the rain-bow reaches the sea with both of its ends*]; and a flock of crows, returning from feeding in a great body, make a rustling noise with their thick wings. Now you may see various sea-birds, and these which range around the Asian meadows, in their beloved lakes of Cayster, toss a large quantity of water in emulation on their shoulders; now thrust their head against the waves; now run into the stream, and joyfully to clap their wings with an inclination of washing *their plumes* in vain; [gesture, *to rejoice and to make gestures by clapping, &c.*] the unlucky raven invites the rain with full throat, and single stalks along on dry sand; nor are the damsels indeed ignorant of *the approach* of storms, who spin their tasks at night, when they see the oil sputter in their burning lamp, and putrid clots to grow together. [*Difficilis est sententia.*]

Nor less may you foresee after rain sunny days and serene skies, and learn to *discry* them by certain signs; for neither then doth the light of the stars seem dim, [i. e. *they shine brilliant*], nor the moon rise obnoxious to her brother's beams, [i. e. *depending upon. The meaning is, that she rises very bright.*] nor thin light fleeces of wooll [i. e. *clouds*] seem to be carried thro' the air. The halcyons, loved by Theris, do not spread their wings to the warm sun along the shore; sordid swine forget to toss unbundled straw with their snouts; but mixt rather descend, and ly down upon the fields; and the owl, observing the setting of the sun on a lofty roof, doth not sing her late songs. [*nequiquam. Trappe renders it in vain, for this bird delights*

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lights in rain, and therefore makes a noise, by way of complaint, because fair weather will come for all her hooting.] Nisus appears aloft in liquid air, and Scylla pays dear for his purple hair. Wherever she flying cuts the thin air with her wings, behold her fierce enemy Nisus with a mighty noise pursues thro' the air; wherever Nisus whizzes in the air, she swiftly flying cuts the fleeting sky. Besides, the crows repeat thrice and four times their shrill notes with a compressed throat, and often in their high nests, joyful, I know not with what unusual delight, chatter in company among the leaves; it delights them, the rains being now past, to reweir their callow young and pleasing nests; not that indeed I believe a divine ingeny is given to them, or a prescience of events in fate greater *than we have*, but, when the tempest and changeful winds and vapours of the sky have altered, and the air moist with the south winds condenses what was rare, and relaxes what was dense, the species [*or pantasmus*] of their minds are turned, and they now conceive various passions within their breasts, different from *those they felt* when the wind dispersed the clouds; hence that concert of birds in the fields, and joy of beasts, and crows exulting with their voice.

But if you will observe the rapid sun, and the moon's succeeding in order, the following day shall never deceive you, nor shall you be caught by the snares of a serene night. [*i. e. a stary clear night shall not disappoint your hopes.*] When first the moon collects returning light, if she include a dusky air within her obscure horns, the greatest rains impend over land and sea; but if a virgin blush be diffused over her face, it shall be wind; golden Phoebe always reddens with wind. But if, in her

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fourth rising, (for this is the surest sign) she be bright, and shall not make her course along the sky with blunt horns, both that whole day and those that succeed it, till the end of the month, shall be without winds and rain, and the preserved mariners shall pay their vows to Glaucus, and Panope, and Melicerta the son of Inous.

The sun also, both when rising and when he absconds in the sea, will give tokens; the surest signs attend the sun, both such as he gives in the morning, and when the stars rise. When he varies his rising in the morning with spots wrapped a in cloud, and retires with half his orb, suspect you showers, for the south-wind, fatal to trees, corn and flocks, forces his way from the deep. [*or, threatens from above.*] Or when, at dawn of day, straggling rays break forth among thick clouds; or if the morning, leaving Tithonus's saffron bed, rises pale, then, alas! the leaves of the vine shall ill defend the ripe grapes; then much dreadful hail shall dance rattling on the roofs. It will be of greater importance to observe these signs when he is retiring, having finished his course in the heaven, for oft we see various colours wander in his face; blue foretels rain, and the fiery colour winds. If spots begin to mingle with the glowing red, you shall see all things confused with wind and rain; let none advise me that night to sail the deep, or loose my cable from the shore. But if, when he both brings the day, and closes it after brought back, his globe be lucid, in vain you shall be afraid of storms, and you shall behold the woods wave with the clear north-wind. In fine, what the late evening brings from whence the wind drives the dry clouds, what humid Auster meditates, the sun will give you signs thereof. Who dares call
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the sun a liar? He also often declares secret tumults to be approaching, and treason and hidden wars to be forming. He also pitying Rome at Cæsar's murder, covered his beamy head in dusky iron clouds, [*ferrugo, the rust of iron,*] and that impious age feared an eternal night. At that time the earth also, and the spacious seas, and obscene dogs, and ill-presaging birds gave portents. How often have we beheld Ætna overflowing, having broke thro' her furnaces, rage with fire in the fields of the Cyclops, and roll *alongst them* balls of flame and molten stones? Germany heard over all the sky the clanking sound of arms; the Alps did tremble with unusual motions. Also loud voices were commonly heard in silent groves, and spectres wondrous pale were seen in the twilight of the night, and beasts did speak; prodigious to relate! the rivers stopt, the earth yawned, mourning ivory wept in temples, and brass did sweat. The Po, king of rivers, tearing up woods, swept them away with its furious whirling inundation, and carried off cattle with their stalls thro' all the plains. Nor at that time did either the ill-boding fibres cease to appear in the entrails *of victims*, making *the beholders* sad, or blood to flow from wells, or cities to resound with wolves howling loudly by night. At no other time did more lightnings fall from the sky while serene, nor ever baleful comets blaze so thick. For this Phillippi saw the Roman troops twice engage with like arms; nor was it unworthy of the gods that Emathia, and the extended fields of Hæmus, should twice be fattened with our blood. Yea, and the time shall come, when in these regions the labouring peasant, turning the ground with the crooked plough, shall find javelins consumed with much rust, and shall beat useless [*or, empty*]

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empty] helmets with his harrows, and admire huge bones digged from their graves.

Ye home-born deities of mortal birth, both Romulus and mother Vesta, who dost guard Tuscan Tiber and the Roman towers, at least do not hinder this youth to prop the sinking age. Long since we suffered enough [*or, made sufficient atonement*] for the perjury of Trojan Laomedon. Long since, O Cæsar, the celestial court hath envied us thy presence, and repines that you are employed about mortal triumphs; where right and wrong are blended; so many wars over the world; such various forms of vice; there is no due regard shewn to tillage; fields lie uncultivated, the hinds being carried off for soldiers, and crooked scythes are hammered into swords. Here Euphrates, there Germany makes war; neighbouring cities, having broken their mutual agreements, carry arms; impious Mars rages over the whole world. As when four steeds start from their barriers, they scour thro' the plain, the charioteer, holding the reins stiff to no purpose, is carried along, [*forced,*] nor doth the chariot hear the reins. [*i. e. it is not in the power of the charioteer to check or curb these coursers.*]

Criticisms, Observations and Reflections.

Imprimis venerare deos.

Liber & alma Ceres, &c.

Et vos agrestum presentia numina Fauni, &c.

Tuque---Neptune. Dique deaque omnes,

Vere novo, gelidus, &c.

Depresso incipiat jam tum mihi taurus aratro.

Ille

*Ille seges demum votis respondet avari
Agricolæ, bis quæ solem, bis frigora sensit.
Pingue solum primis extemplo a mensibus anni
Fortes invertant tauri.*

*At si non fuerit tellus fecunda, sub ipsum
Arcturam tenui sat erit suspendere sulco.
Alternis idem tonsas cessare novales,
Et segnem patiære situ durescere campum.
Aut ibi flava serēs mutato sidere farra,
Unde prius latum siliqua quassante legumen, &c.
Urit enim lini campum seges, &c.
Sed tamen alternis facilis labor; arida tantum
Ne saturare fimo pingui pudeat sola.
Exercetque frequens tellurem, atque imperat arvos.
---Cumulosque ruit male pinguis arena.
Nudus ara, sere nudus.*

If we be independent, we have no Reason to address the supreme Being, that he may pour down his Blessings on us; but if we need his Aid, Favour and Assistance, why ought we not to ask them, especially considering that he commands us to do this, with a Promise of gracious Audience?

Alexander the Great could conquer the whole World, yet he would have been greater indeed, if, by his own Power, he could have brought down from heaven one small drop of rain. What Reason then have we, silly Creatures, to invoke him who is Almighty? The heathen Mariners cried every Man unto his God, tho' a Nonentity, while *Jonah* was fast asleep. Shall the Ship-Master say to him, What meanest thou, O Sleeper? Arise, call upon thy God. Strange Stupidity in him, and as much in us, who neglect the Adoration of the only true God!

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The Prayer of Heathens is for Aid and Assistance, Safety, Protection and Happiness. The Prayer of some Christians is for Confusion and Damnation. 'Tis true, the *Amen* is always left to God, and he will certainly add, without their Repentance, So it shall be. Shall *Virgil* call upon all his Gods and Goddesses, and shall not we, according to our different Circumstances, Needs and Necessities, in our Addresses, fix our Eyes upon each of the divine Perfections? If I desire you to prepare for your Plough in your Closet, don't take it amiss; I follow my Author, *Imprius venerare deos*.

We are directed by my Author to yoke our Steers in the Beginning of the Year, in the Spring, or to delay till Autumn. Why such different Directions? We see some Reason for this in what follows his Advice, when he desires us to plow in Autumn. It is likewise plain, that the Soil, which he enjoins us to break up in the Beginning of the Year, is a rich Soil, whereas that which he would have delayed till Autumn, is a Soil not fertile in its own Nature. Again, we see that *Virgil* recommends Fallowing of Ground. This I imagine may be proven from the following Expression, *viz. That land answers the Expectation of the Farmer, which hath twice felt the Sun, and twice the Cold*; and from his Advice to plow a-cross, as well as to exercise or labour our Ground frequently, in order to command it. He likewise, in my opinion, judges Clays of all Kinds fit for the Plough. In his second *Georgick* he commends a Soil almost black, as the most fruitful, which I reckon to be black Clay; and notwithstanding he directs frequent Culture, yet he supposes, that, after all, you may have Clods, which are to be
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crushed; and therefore, where these did ly after so much Labour, it was (we may conclude) stiff Clay. From all I have said, I think I may answer the above Question by this following Rule, *viz.* That we ought to plow, for the first Time, (the Weather being good, I infer from *nudus ara*) either sooner or later, according as our Soils are stiff, or light and rare.

Virgil gives us two Rules to be observed by good Husbandmen, Rest and Change of Crops. Some, by *allowing our Fallows to rest in alternate Years*, understand every other Year. This Opinon would have had a better Foundation, if my Author had used the singular Number, *alternno anno*. The *Earl of Lauderdale*, by *alternis annis*, seems to me rather to understand, that they should be labour-ed for some Number of Years, and rest some Years. If any Soil be labour-ed more than five Years without Rest, it ought to be naturally very rich.

If we plow our Ground without Intervals of Rest, he plainly condemns, and that most justly, our Practice of sowing Oats. The Meaning of *sed tamen alternis facilis labor*, seems to be, that allowing it to rest, and Summer-Fallowing, make easy Work. In this Case he allows Oats to be sown, tho' they burn the Ground and consume the unctuous Matter, provided that after them you dung your Ground. If the Soil be Sand, Gravel, or naturally dry, it is best to spread fat Dung upon it, or nasty Ashes, such as these which are mixt with human Urine and Ordure.

T H E

THE SECOND
Book of *Georgicks*.

THUS far of agriculture, and the celestial signs; now, Bacchus, I will sing of thee, and together with thee of woodland shrubs, and the progeny of the olive which grows slowly. O Father Bacchus, be present with me. All here are full of thy gifts; the field laden with autumnal vines doth flourish for thee, and the vintage foams in full vessels. Father Bacchus, come hither, and tinge with me your naked legs in new wine, having stript off your buskins.

First of all nature doth vary in propagating trees; for some of them grow of their own accord, no man forcing them, and overspread fields and the banks of winding rivers, as the tender osier and the flexile broom, the poplar and the white willow with its gray leaf. Some rise from seed thrown into the ground, as the lofty chestnut and the beech, which being biggest in the wood puts forth its leaves in honour of Jupiter, and the oaks esteemed oracular by the Greeks. A thick grove springs from the roots of others, as the cherry and elm; also the little Parnass-born bay sprouts up under the very broad shade of its mother. Nature at first appointed these *three* ways; by these every kind of woods, and shrubs, and sacred groves, blooms.

There

There are other methods which experience has found out by a tract of reasoning. One slipping off shoots from the tender trunk of their mother, sets them in furrows; another buries *fibrous* stocks in mold, and standils split in four, and stakes cut sharp. Some other trees want to have the branches for propagation bended arch-ways, and the shoots living in their native mold. [i. e. *the branches bended down from the tree, and covered with earth, take a great number of roots, and send forth shoots, which branches being cut at about three inches distant, each shoot may be planted.*] Others need no root, and the pruner doth not fear to plant a scion from the top of the bough, restoring it to the earth *from which it originally came*. Besides (wondrous to relate!) new roots from the olive are emitted from the dry wood, the stock being split in pieces; and we often see the graffs of one tree change to the branches of another without any damage, and the pear-tree transformed into ingrafted apples, and the stony cornels blush with plumbs. Wherefore, ye swains, come and learn the proper culture of the different kinds, and make your wild fruits mild by cultivation. Let not your land ly idle or useles; it is delightful to plant Ismarus with vines, and to clothe great Tiburnus with olives. And thou, O Mecænas, my glory, justly the greatest part of my fame, be present, and share with me my begun toil, and flying unfurl the sails on the open main. I do not desire to encompass all within my verses, not tho' I had an hundred tongues, and as many mouths, and an iron voice. Be present, and coast along the first shore; the land is in our power. I shall not detain you here with fictitious verse, and winding mazes, or long preambles.

What

What trees spontaneously spring up in the clear air are indeed barren, but rise large and strong, because there is a natural vigour in the soil; yet if any should even graft upon these, or transplanting set them in well-prepared trenches, they will put off their savage nature, and by frequent culture will readily follow whatever artificial rules you call them to. Likeways these which sprout barren from the low roots will do the same, if they be disposed of [*transplanted*] in open fields. Now [*i. e. whilst they grow at the root*] the leaves and branches of their tall mother overshadow them, and hinder them from bearing fruit while they grow *there*, or burn them [*i. e. kill them by withholding moisture*] when they are bearing. The tree which springs up from seed sown grows slowly, to afford a shade to late posterity, and the fruits degenerate losing their former juices, [*ellipsis; unless due care be taken of them*] and the vine bears worthless clusters a prey for birds. Labour indeed must be bestowed on all of them; all must be thrust into trenches, [*well-prepared ground*] and are to be subdued with much expences. Olives answer best from trunks, vines by propagation, Paphian myrtles from the solid stock; hard hazels rise from scions, and the tall ash, and the shady tree [*the poplar*] of which Hercules's crown was made, and the oak of Dodonæan Jove. [*i. e. sacred to Jove in the forests of Dodona.*] Also the lofty palm shoots from these, and the fir that is to see the dangers of the sea. But the prickly crab-tree is grafted with the twig of a filbert, [*or, walnut-tree,*] and barren planes have born huge apples; the beech has bloomed with the white flower of the chesnut, and the wild ash with the flower of the pear, and swine have cracked acorns under elms. Nor is the method

method of ingrafting and inoculating the same; for where the gems bud from the middle bark, and burst their tender coats, a narrow slit is made in the knot itself; here they inclose a bud from a alien tree, and teach it to incorporate with the moist rhind; or else the knotless trunks are cut over, and a way is cloven with wedges [*a cleft is made*] deep in the solid wood; then fruitful slips are ingrafted; nor is the time long till a large trees shoots up towards heaven with happy [*laden*] branches, and admires the new leaves and apples not her own. Besides the kind is not the same [*there are several kinds*] of the strong elm, the willow, and the lore, and of the Idæan cypress; neither do the fat olives grow of one shape, Orchites produce round, Radii long, and Pausia bitter berries; apples and the orchard of Alcinous differ. Nor do the pearl, the bergamot, and weighty warden pears grow from the same slip; nor do the same grapes hang on our trees which Lesbos crops from Methymnæan vines. There are Thasian vines, and white Marcotiques; these fit for a rich soil, those for a lighter; and the Psythian best when dried, and the thin Lageos, which will try the feet at any time, and ty the tongue, the purple and the rathripe grape. And with what verse shall I sing *your praises*, ye Rhætian vines? ye must not therefore contend with Falernian cells. There are also Amminean vines, *affording* most during strong-bodied wines, to which both Tmolus and even king Phanæus gives the precedency; and the lesser Argitis, with which none can contend, either in flowing so much, or in lasting for so many years. Nor, Rhodian, can I pass thee in silence, grateful to the gods, and accepted by them in second services; and thee, Bumastus, with huge swelling grapes.

[Bumastus]

Bumastus resembling in size and shape the dugs of cows.] But neither is there a number how many kinds of them there are, or what are their names, nor is it worth while to comprise them in my verse, or, to know their number] which whoever would know, the same man may as well be desirous to learn how many sands are tossed by Zephyr in the Libyan sea, or to know how many Ionian waves roll to the shore, when Eurys with more violence beats the ships.

Nor can all soils bear every thing. Sallows grow near rivers, alders in marshy lakes, barren wild ashes on rocky hills; the shores rejoice most in myrtles; vines love open hillocks, eughs the north and cold. Cast your eyes on that part of the earth which is cultivated by the remotest inhabitants, the eastern habitations of the Arabians and the painted Scythians. Countries are distinguished by their trees. India alone bears black ebony; the Sabæans solely have frankincense. Why should I name the balms sweating from the fragrant wood, and the berries of the ever-green Ægyptian thorn? Why should I tell you of the groves of Ethiopia, white with soft wooll, and how the Seres comb soft [*filken*] fleeces from leaves? or of these woods which India nearer to the sea produces, a tract in the extremity of the globe, where no arrow can surmount by its flight the highest air of trees; [i. e. *that part of the air which is at the top of the trees, whereby is meant the tops themselves*;] and yet that nation is not inexperienced in the use of the quiver. Media bears the tart juice and lasting relish of the happy citron, than which no antidote comes more present, and drives away black poison from the limbs, if at any time cruel step-dames have poisoned cups, and mixed

mixed herbs and not innoxious spells. The tree itself is large and like a laurel, and would be a laurel if it did not diffuse a different scent. Its leaves do not drop off [*are not blown off*] by any wind; its blossom is most tenacious. The Medes foment with this, and *correct* their breath and tainted mouths, and cure wheezing old people.

But neither Median woods, a most plenteous land, [*or fertile soil,*] nor fair Ganges, and Hermus turbid with gold, can compare with the praise of Italy; nor Baëtra, India, nor Panchaia fat with incense-bearing sands. No bulls breathing fire from their nostrils have turned these turfs, [*i. e. have plowed Italy,*] nor teeth of huge dragons are sown; nor doth a crop rise rigid with helmets and spears of soldiers growing thick; but heavy grain and the Massick juice of Bacchus abound in her; olives and sprightly herds hold possession. Here the war-horse with a lofty port prances in the field; there white flocks, and bulls the largest sacrifice, oft plunged, Clitumnus, in thy sacred stream, have led the Roman triumphs to the temples of the gods. Here is perpetual spring, and summer in unusual months; [*i. e. even in the months of winter, which uses not to happen in other countries;*] the cattle teem twice, twice trees bear their fruit; but fell tygers are absent, and the savage seed of lions; nor do poisonous herbs deceive the wretched gatherers; nor doth the scaly serpent trail his immense orb amongst the ground, nor with such a vast length, *as in other countries,* convolve himself into a spire. Add such variety of famous cities, the labour of artificers, so many towns reared up by the hands of workmen from craggy rocks, [*alias, torn from quarries*] and rivers gliding under ancient walls. Shall I rehearse
the

the sea which washes it above and below, [on either side] or such spacious lakes? thee, Larius, greatest, and the Benacus swelling with billows, and the roaring noise of the ocean? Shall I praise thy ports, or mention the mound added to the Lucrine bay, and the sea indignant [i. e. *tempestuous and disdainful, being shut from thence*] with a great sound round the structure where the Julian waters bellow loud, the sea being driven back, and where the Tyrrhene tide is poured into the frith of Avernus. This same happy region shews in her veins rivers of silver and brass metal, and flows copiously in gold. She has brought forth a warlike race of men, the Marsians and Sabellian youth, and the Ligurian used to toil; and Volscians armed with pikes; [iron beaded darts;] the Decii, Manlii, and the great Camilli; the Scipio's hardy [or, invincible] in war; and thee, most illustrious Cæsar, who at present, as a conqueror, in the most remote coasts of Asia, dost avert the unwarlike Indians from the Roman towers. Hail Saturnian soil! great parent of grain and men; [heroes;] for thee I undertake this argument of ancient art and fame, venturing to disclose the sacred spring, and sing Ascræan verse thro' Roman towns.

Now is the proper place [to treat of] the genius of soils; what is the strength of each, what its colour, and what is in its nature fit for different productions. First, grounds which cannot be easily improv'd, and barren hillocks, where the stony particles are thin, and pebbles in bushy fields, rejoice in Pallas's grove of long-lived olives. Many wild olives rising on the same mold shew this, that which grows spontaneously will thrive extraordinarily after culture,] and fields strewed with berries which grow in woods. But the earth which

is fat and fertile with sweet natural moisture, and producing many herbs and a fruitful field, such as we often use to see in a hollow vale *at the bottom* of a mountain, whither streams run from lofty rocks, and draw fat slime; and that which rises to the south, and feeds the fern derested by the crooked plough; this field will produce to you betimes the strongest vines flowing with much wine; this is fruitful of the grape, and that liquor which we pour for libation from golden goblets, when the fat Tuscan blows his ivory tube at the altars, and we offer *to the gods* reeking intrails in hollow chargers.

But if herds be thy study more, and to breed calves or lambs, or goats which burn the field, [*by browsing thereon make it so bare that it appears as if burnt,*] seek for woods, and the distant fields of the well-fed soil of Tarentum, and such a plain as unhappy Mantua lost, feeding white swans in the grassy stream. [*i. e. such a field as Mincius divided, by the grassy stream where swans were fed.*] Limpid springs and grasses are not wanting there to flocks; and how much the herds crop in the long days, so much the cool dew restores in the short night. The mold almost black, and that is fat beneath the coulter when pressed into it, and whose earth crumbles, (for we imitate this by ploughing) is best for bread-corn. [*The richest soil is blackish, inclining to clay, especially when deep; the flocks draw nourishment at a considerable distance, and therefore, in chusing the finest soil, we ought to consider the nature of the ground below the reach of the plough.*] From no other field you shall see more wains return home drawn by slow-paced bullocks; or that from which the angry ploughmen hath transported a wood, and overturned groves

groves *which had stood idle* for many years, and grubs the ancient habitations of birds with their deepest roots; they fly into the air having left their nests; but the *formerly* uncultivated field shines, the share being forced thro' it. For indeed the hungry gravel of steep ground will scarce supply the bees with dew, and the lowly cassia; as also the rough crumbling pebles and chalk corroded by black snakes; they deny that any other soil bears such agreeable food to serpents, or supplies them in such winding lurking-places. That which exalts thin clouds and flying smoke, and imbibes moisture, and at pleasure restores it from itself, [i. e. *emits it*,] and which always clothes itself with its own verdant grass, nor hurts iron with salt rust or scurf; that ground will wreath thy elms with fruitful vines, that yields oil in abundance; by cultivating thou shalt experience that ground both fit for cattle, and patient for the crooked share. Such wealthy Capua tills, and the coasts near Vesuvius, and the river Clanus not favourable to the wasted ground of Acerra. [i. e. *by inundations this river wasted the ground of this town, or destroyed the town itself*.]

Now I will tell you how you may know every soil. If you enquire whether it be rare or dense, because one favours grain, the other wine; the dense corn, the rare wine; you shall first chuse a place with your eyes, and order a pit to be sunk deep in the solid ground; and next you shall restore all the earth to the hole, and you shall level the surface of this mold with your feet. If this prove deficient the soil is thin, and shall prove fitter for cattle and generous vines; but if it denies that it can retire into its native mansion, and the mold exceed the trench being filled, the soil is thick; expect

pest stiff clods and tough, and break up your ground with sturdy bullocks. But salt land, and what is called bitter, is unfavourable to corns, (it neither becomes tame [*or mellow*] by plowing, nor preserves the species of the grape, or the proper names of apples) [*i. e. both of these fruits lose their taste and kind*] such will give a proof [*or, discovery*] of itself. Take osier baskets of twigs wrought thick, and strainers of wine-presses; here let that vicious ground and sweet waters from the spring brimful in the *vessel* be trodden; [*or, pressed;*] all the water will force its way, and big drops ooze betwixt the osiers; the relish will make a sure discovery, and the bitterness will writhe the smarting mouths of them who taste it. Likeways we thus learn to *know* what ground is fat; this handled never crumbles, but while you hold it, it cleaves to your fingers like pitch. The moist nourishes ranker grass, itself is luxuriant beyond due measure. Ah! let not that prove too fertile to me, nor shew itself too strong by the first blade. What soil is heavy, and what light, (tho' passed in silence) betrays itself by its own weight. 'Tis obvious to perceive by the eyes the black and every other colour, but it is difficult to discover the vicious cold. Yet pitch-trees sometimes, and the the nocent eughs, or the black ivy, disclose signs of this soil. Having well considered these rules, remember to dry your ground, and cut the big mountains with trenches, long before you plant the fertile off-spring of the vine, and expose the clods supine to the north. The best manured molds are putrid earth, the winds and cold hoar-frost make it such, and the robust delver turning over the earth forced *thereby* to moulder. But these men whom no vigilance escapes, first chuse plots of the same

genius

genius ; *one*, in which the first plants of trees spring] ing from the seed may be prepared [i. e. *a nurserye* and *another* into which afterwards they may be] carried, being transplanted in order, [*or, in rows*, lest the slips should disagree with the parent they have got in exchange on a sudden. They likewise inscribe on their bark the site of the heaven, that, after the same manner every one stood on the same side, as it suffered the southern heats, and they exposed their backs to the northern pole, they may replant them. So much is it to be accustomed to *any thing* in tender years. [i. e. *so great is the force of custom contracted in tender years.*]

First enquire whether it be best to set your vines on hills or a plain. If you measure out fields for *this purpose* in a fat valley, plant thick ; the vine is not more barren in a thick-planted field. But if you mark out ground rising in banks and sloping hills, plant them in order, and with equal care let every interval be squared, your tendrils being placed in ranks divided exactly. As often in a great war, when a long legion displays its cohorts, and the squadrons stand in the wide plain, and the army is formed in lines, and all the earth fluctuates far and near with the glittering brazen armour, nor yet do they join their horrid battle, but Mars doubtful roams about in the middle of arms ; let all your intervals be measured with equal exactness of paths, [*numerus signifies quantity as well as number ; likewise order, regularity, exactness.*] not only that the prospect may entertain your mind whilst at leisure, but because the earth will not otherways supply equal strength to all *the plants*, nor can the branches extend themselves in the open air.

Per-

Perhaps you may ask what ought to be the depth of your trenches. I dare commit the vine even to a shallow furrow ; a tree is planted much deeper in the ground, [*Virgil here looks upon the vine only as a shrub.*] chiefly the *Æsculus*, [*This may either be rendred the beech, or a tree like it with broad leaves, which bears acorns.*] which, as far as it shoots thro' the fluid air with its head, so deep it tends to hell with its roots ; therefore nor winter's *rage*, nor blasts, nor rains tear it up ; it stands unmoved, and rolling thro' many years exceeds by its duration many ages of mortals ; then stretching wide its sturdy boughs and arms every where, itself standing in the middle sustains a mighty shade. Nor let your vineyards be turned [*decline*] to the setting sun ; nor plant the hazel among the vines ; nor seek the topmost twigs, or break the highest scions from the tree, (so much have they a love for the earth) nor hurt the progeny with a blunted knife ; nor mangle the stems of the wild olive ; for oft fire falls from *the hands of unwary swains*, which first lurking unperceived beneath the unctuous bark, invades the solid wood, and rising from thence to the high leaves makes a mighty noise in the air ; then proceeding thro' the branches as a conqueror, reigns in the high top, and involves the whole wood in flames, and thick with pitchy darkness, throws up a cloud to the sky ; chiefly if a tempest seizes the woods from the north, and the wind carrying it alongst rolls the flames in globes. When this happens, they can neither spring again from the root, nor being lopped recover and become green a second time in the deep earth, like to what they were formerly. The mischievous wild olive remains alone with its bitter leaves.

Let

Let no counsellor, however wise, perswade you
 to stir the earth when the north-wind breathes ;
 when winter shuts the veins of the ground with
 cold, nor permits (your slips being planted) the
 frozen root to take hold on the mold. The best *time*
 for the plantation of vineyards is, when in the
 purple spring the white bird [*stork*] comes, [*re-*
turns,] detested by long snakes, or in the first cool
 weather of autumn, when the rapid sun hath not as
 yet touched the winter tropick with his steeds. But
 the summer is now past. The spring is most friend-
 ly to the leaves of trees, the spring is most favou-
 rable to the woods ; the lands swell in the spring,
 and require genial seed. Then almighty father
 Ether descends into the lap of his glad consort
 with fruitful showers, [*The air is shadowed forth*
by Jove and the earth by Juno, betwixt whom there
is, as it were, a kind of marriage represented by the
poets ; upon the fructifying influences of the former,
the fertility of the latter depends.] and this great
 parent mingled with her huge body nourishes all
 her young. Then the lowly shrubs resound with
 melodious birds, and herds renew their loves at
 stated times ; every field doth bring forth, and the
 earth opens her bosom to the tepid breezes of the
 zephyrs. Kindly moisture abounds in all plants,
 and the herbs with safety dare trust themselves to
 new suns ; nor doth the tender vines fear rising
 south-winds, or a shower driven from heaven by
 great [*boisterous*] northern winds ; but it puts forth
 its gems and unfurls all its leaves. I should not
 believe that other days shone at the very original of
 the new-born world, or that they had a different
 tenor of the year ; that time was spring ; the whole
 globe enjoyed the spring. And the east-winds for-
 bore their wintry blasts, when cattle first received
 the

the light, and the iron race of men raised its head from stony ground, and savage beasts were sent into the forests, and stars to the heaven. Nor could things which are weak bear these extreams, if such pause did not interveen betwixt cold and heat, and the indulgence of heaven did receive the earth *under its protection*. For what remains; whatever slips you plant over the fields, spread fat dung over them, [i. e. *their roots*. What I look upon to be the best method for planting, is first to take virgin-earth and mix it with fat dung, turning over this mixture at different times, till both be incorporated; this may be by two years. The ground having been trenched which you design to plant, dig a hole or pit, into which throw some of the above compost, upon which plant your tree, spreading fat dung over its roots; I would not have fruit-trees planted deep, because the best earth is near the surface; in wet stiff-clays, plant only six inches deep; lay two tiles, or three bricks, below the root of all fruit-trees, except pears, and cover, after the dung, with the compost I mentioned.] and remember to cover them with deep mold, and inclose spungy stones, or rugged shells, for betwixt them the rain will gently glide, and thin vapours descend, and your tendrils will rise with vigour. There are some found of late, who press them with a stone above, and the weight of big potheards; this is a fence against immoderate showers; this defends them when the scorching Dog-star cleaves the ground gaping with drought.

Having set your plants, it remains to draw up the mold often to their roots, [*capita, i. e. radices, because the root takes its nourishment as with a mouth,*] and oft to wield the iron two-forked how, or to work the ground with the share impressed, and

to wheel the struggling steers even betwixt your vines; then to join to them slender canes, and poles of pruned rods, and ashen stakes, and two-pointed forks, by the strength of which they may learn to creep upwards, and brave the winds, and follow the large spreading boughs in the top of the elm. But when their infant age begins to ripen with new leaves, you must spare their tender years; and while the twig springing with vigour raises itself towards the skies, diffusing itself with loose reins in the air, as yet the edge of the pruning knife is not yet to be tried, but the leaves are to be pluckt off by crooking your fingers and the leaves cull'd betwixt each other. But when their roots being firm, having clasped the elms, they straggle, then prune their branches; then lop their arms before they dread the steel; but now exercise a more severe command, and check their flowing boughs. *Dead hedges* are also to be woven, and every kind of cattle is to be kept back, chiefly when the leaf is tender, and not inured to suffering; which leaves, besides severe winters, and the vehement heat of the sun, wild buffaloes and wanton goats [*or, goats persecuting and vexing the vines; or, sequaces may signify, following one another as sheep and goats do*] daily hurt. Sheep and greedy hiefers feed upon them; nor doth the winter stiff with hoar-frost, or the vehement heat bearing upon the parched rocks, prove so noxious as these herds do, and the venom of their hard teeth scar the indented [*or, corroded*] stocks. For no other crime the he-goat is slain [*sacrificed*] to Bacchus on all his altars, and ancient plays appear upon the theatre, and the Athenians proposed prizes for these plays around the big villages and cross ways, and jovial over their cups leapt

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over greasy bottles [*made of greasy hides*] in the soft meadows. The Roman colony sprung from Troy, likeways play in rude verses and unbounded laughter, and put on horrible vizards of hollow barks of trees, and invoke thee, Bacchus, in joyous songs, and hang thy little soft [*or, effeminate*] images on a tall pine. To thee, [*i. e. in honour of thee,*] from hence, every vineyard ripens with much fruit, and the hollow valleys and the shady groves; and what side soever the god turns his honest face to, they are filled with *grapes*. Wherefore we will sing due praise to Bacchus with a native song, and bring chargers and cakes; and a sacred goat led by the horn shall stand before the altar, and we'll roast his fat entrails on hazel spits.

There is also another toil in dressing vines, which never can be exhausted; [*finished;*] for the whole soil must be trenched every year thrice or four times, and the clods are to be broken daily by turning your twibils, and the whole grove [*vineyard*] is to be eased of luxuriant leaves. The farmers past labour returns in a circle, and the year rolls within itself by the same ways; and then at length when the vine hath shed its late leaves, and the cold north-wind hath stripped the groves of their honour, even then the diligent rustick extends his cares to the ensuing year, and persecutes the naked vine with the crooked knife of Saturn lopping it, and forms it by pruning. Be first in digging your ground; be first in burning the sprays cut off [*or, carried away, i. e. carried home*] and first return your poles into your house; but reap *thy vintage* last. Twice the shade invades the vine, [*i. e. the luxuriant leaves,*] twice weeds overshade the vines, and thorns growing thick; hard labour both. Praise great farms, cultivate a small one. Besides, the unpruned shrubs of

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holm in the wood, and reeds which grow on the banks of rivers, are cut *for vine-props*, and the care of the wild fallow doth employ us. Now the vines are tied ; now the vines lay aside the hook ; [*This is a poetical idiom, signifying that they do all require the pruning-hook.*] the weary dresser doth now rejoice *that he hath reached* his outmost ranks ; yet the mold is to be stirred, and the dust to be raised *by breaking the clods*, and the air feared for the ripe grapes. [i. e. *bad weather, &c.*] On the other hand, no culture is [*needful*] to the olives, nor do they expect the crooked pruning-hook and sharp-teethed racks, when once they are fastened in the ground, and have been seasoned by the air. The earth itself supplies moisture to the plants, when turned up by the crooked share, and ripe fruit with the plough. [i. e. *almost as soon as you have done plowing, you gather the fruits.*] On this account nourish the fat olive grateful for peace. [i. e. *an agreeable sign of peace.*] Apple-trees also, when first they feel their trunks strong, and have received their proper vigour, shoot on a sudden to the stars by their own strength, not wanting our help, nor less mean while is every grove loaded with fruit, and the uncultivated haunts of birds glow with red berries. Shrubs are stript of their leaves, tall trees furnish torches, and nocturnal fires are fed with fuel and afford light. And do men doubt to sow, [*or, set,*] and imploy care ? Why should I name greater trees ? even the fallows and the lowly broom either afford browse to cattle, or a shade to shepherds, and a hedge for corns, and honey-food for bees. And it is pleasant to behold Cyturus weaving with box, and the groves of Narycian pines ; it is agreeable to see fields which are not obnoxious to mens rakes, or any care ;

care; even the steril woods on the top of Caucasus, which the raging eastern winds still break, and carry before them different kinds of trees, yield various products; they yield pines useful timber for ships, cedar and cypress for houses; hence swains make naves for wheels, and spokes for wains, and crooked keels for vessels. Willows are fruitful in twigs, elms in leaves, but the myrtle is profitable for strong spears, the cornel is useful for war; [i. e. *warlike instruments*;] the eughs are bended into Parthian bows. Also the smooth lime-trees, and box which may be polished by the turner's instrument, receive a shape, and are made hollow by the sharp steel; and the light alder swims the torrent stream launched on the Po; bees also hide their swarms under hollow barks, and in the concave of a vicious oak. What have the gifts of Bacchus produced to be equally praised *as honey*? Bacchus too has given causes of guilt. He quelled by death in the raging Centaurs, Rhoetus, and Pholus, and Hylæus threatening the Lapithæ with a vast goblet. O more than happy country swains, if they know their own happiness! for whom the most just earth [*returning with interest what is committed to it*] pours forth fruit easy to be prepared; at a distance from discordant arms; [i. e. *jars, quarrels, factions, seditions, mobs, &c.*] if with them a lofty palace with proud gates does not vomit out a tide of visitants in the morning from all its portals; and if they do not gape for [*greedily covet*] pillars variegated with beautiful shells of tortoises, and garments imbroidered with gold and Corinthian brass, neither is their white wool died with Assyrian poison; [*taint*;] nor is the use of their pure oil corrupted by cassia; yet safe repose, and a life that knows not how to cheat,

ignorant of fraud,] abounding in various kinds of riches; ease in large farms, groves, and living lakes, cool valleys, [frigida Tempe, species pro genere; many received their name from this pleasant valley which lay in Thessaly. Thus Ovid hath Helioria Tempe, Statius Theumefia Tempe in Boetia.] lowing of their cattle, and sweet sleep beneath the shades of trees, are not wanting. Woods are there, and dens of beasts, and youth patient of labour, inured to little fare, the rites of the gods and holy fires; justice leaving the world made the last prints of her steps among them. In the first place, [principally I pray] that the muses, dear to me above all, whose sacred things I bear, [i. e. whose priest I am,] struck with strong passion for them, may accept of me; and that they may shew me the roads of heaven and motions of the stars, the various defects [i. e. eclipses] of the sun, and labours of the moon; what shakes the earth, [i. e. causes earthquakes,] by what impulse the sea swells high having broken its dams, and again ebbs into itself; why the winter suns make such haste to tinge themselves in the ocean, and what delay retards the sluggish nights. But if the cold blood about my heart hinder me, that I cannot be able to approach these parts of nature, may the rural fields, and streams gliding along the valleys, delight me. May I be inglorious [without aspiring to any other glory] above woods and rivers. O where are the plains, Spercheus and Taygetus, frequented by raging Bacchalian virgins! O who will place me in the cool valleys of Hæmus, and cover me with a great shade of branches! Happy is the man who could know the causes of things, and hath cast all fears, and the inexorable fate, and the noise of greedy Acheron, beneath his feet. And happy too is he who knows the

the rural gods Pan and old Sylvanus, and the fil-
ter nymphs; the fasces [i. e. *the honours*] of the
people, and the purple of kings have not moved
him, nor hatred disturbing [or, *tormenting*] faithless
brethren, or Dacians descending from the Danube
leagued in arms, nor Roman affairs, and king-
doms which must come to ruin; neither hath he
been grieved, either whilst commiserating the poor
[*In some country places there is such plenty of all neces-
saries of life, that they supply their neighbours so that
they are not the objects of pity.*] or doth he envy the
rich. He gathers the fruits which the trees, which
the willing ground doth bear of its own accord,
nor doth he see hard laws and the confused bar, or
the records of the people. [i. e. *the publick re-
cords.*] Some vex the unknown seas with oars, and
rush to arms, invade the earth and palaces of kings.
One with ruin attacks a city, and their miserable
household-gods, that he may drink in gems, [i. e. *in
bowls encased with gems,*] and sleep in Tyrian pur-
ple. Another buries wealth, and broods over
hoarded gold. That man doats with fondness
struck with the *applauses of the bar*, [or, *with ad-
miration of the oratory thereof,*] the applause both
of the people and fathers (for it is doubled) in
the theatre seizes this man set agape. Some rejoice
when besmeared with the blood of their brothers,
and change their houses and sweet dwellings for
exile, and seek a country lying under another sun
[*climate.*] The farmer turns up the earth with his
crooked plough; from hence is his annual labour;
hence he sustains his country and his little children,
and herds of oxen, and deserving steers. Nor is
there any pause, but the year either abounds with
fruit, or the increase of cattle, or sheaves of corn,
and loads the furrows with its yearly returns, and

over-

overcomes the barns. Winter comes on, Sicyonia
 olive is squeezed by the oil-mill. Swine return
 riskily home satisfied with mast; [*læti includes*
riskily and satisfied ;] the woods yield crabs; au-
 tumn resigns its various product, and the pleasant
 grape is ripened on high rocks exposed to the sun.
 Clean while sweet babes hang about the mouths of
 their parents; the chaste family preserves modesty;
 the kine yield their dugs distended with milk, and
 the fat kids in the rank grass push among them-
 selves with butting horns. Himself keeps religi-
 ously festival days, and stretched upon the grass
 where there is a fire in the middle, and his neigh-
 bours crown the bowls, pouring forth wine he calls
 Bacchus, and proposes to the herdsmen match-
 ings of the swift [*flying*] spear against an elm, and
 pares their robust bodies for their rustick wrestling.
 The antient Sabines of old led this life. This Re-
 nus and his brother; thus brave Etruria grew, and
 thus Romé was made the most glorious city in
 the world, and alone inclosed seven hills with her
 walls. Saturn also lived thus in the golden age up-
 on the earth, before the empire of the Cretian king,
 and before impious nations fed on slain oxen, nor
 mortals yet had heard that trumpets were blown,
 or swords made a sound when laid, *in order to be*
forged, on hard anvils. But we have finished our
 career of immense bounds, and now it is time to
 yoke the smoking necks of the horses.

Criticisms, Observations and Reflections.

----- *huc summis liquuntur rupibus amnes,*
Felicemque trahunt limum.

Nam

*Nam jejuna quidem clivosi glarea ruris
 Vix humiles apibus casias roremque ministrant ;
 Et tophus scaber, &c.
 Quaque suo viridi semper se gramine vestit, &c.
 ----- illam experiere colendo,
 Et facilem pecori, & patientem vomeris unci.
 Sed picis in morem ad digitos lentiscit habendo.*

We must not think that *Virgil* ought to be understood so as that Rivers (according to the common Acceptation of the Word) run from the Tops of Mountains. The Verb *liquuntur* shews this not to be his Meaning. Rivers run at the Bottom ; these may be said to melt from the Tops of Rocks, because they are fed by the Snows which melt from them, and by the Rain which sinks down so slowly, as if it melted. On the sides of Hills, and in Valleys below them, there are fertile Soils, where no Current is discernible.

It is of great Consequence to the Farmer, to know what Soils are naturally fittest for Corn and what for Pasturage. The Direction about making the Pit is plain. *Virgil* tells us, that the best Soil for Grain is that which is almost black ; if altogether, it is naturally unfit, such as Moss. Almost, *i. e.* it must be black Clay of a putrid Nature ; a Soil which easily absorbs and emits Rain or Moisture ; it must be dense, not rare, such as, when handled, sticks to your Fingers. By all which it is plain to me, that he esteemed Clays as most fit for Grain. The Truth is, we reap what we call the truest Boll, and best of Grain, from Clays. If these ly at the Bottoms of Hills, they are undoubtedly richer than in other Places. A Soil is rich, which clothes itself always with verdant Grass. This is a sure Sign that there is

Strength

Strength in it, when its Grass is green when the Colour of other Grasses fade. I look upon a Soil to be good, if drained and cultivated, which bears long Grass, even of a dusky Colour, frequently reddish at the Top, and sometimes yellowish, which we call Bent. The Vice is, too much Moisture: If this Soil be drained, it is always good for Pasture; and it may be profitable sometimes to take Corn-Crops off it after Rest, even tho' it may be rare or thin: But if it be Clay, you may expect an extraordinary Increase. But, alas! *says* we, my Soil is Sand and Gravel; in a Drought I have neither Grass nor Corn. If your Ground lies deep, feed Goats and Sheep upon it; if plain, Compost of Clay, Cows Dung and Lime, will cause it answer your Wishes, either in Grass or Corn. I knew one who never missed, by this Method, an extraordinary Crop of Wheat on these soils, even in dry Summers, because the Wheat rose so high by the Moisture of the Spring, that it defended itself afterwards.

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THE THIRD

Book of Georgicks.

LET us likeways sing thee, great Pales, and thee shepherd famous from Amphrysus, and you woods and rivers of Lycæus. All other *themes* that could entertain idle minds are already published. Who does not know dire Eurystheus, or the altars of infamous Busiris? To whom has not the boy Hylas been described, and Latonian Delos and Hyppodame, and Pelops an excellent horseman, remarkable for his ivory shoulder. A way is to be tried, whereby I may be able to raise myself from the earth, and as conqueror be praised by the mouths of all men. I first returning from the top of Helicon, if I live, will bring the muses with me from thence into my own country. I first will bring back the Idumæan palms to thee, Mantua; and build a temple of marble on a green field near the water, where the great river Mincius wanders with slow winding streams, and fringes its banks with slender reeds. Cæsar shall be in the middle, and shall possess the temple. I a conqueror, conspicuous in Tyrian purple, will drive a hundred chariots each drawn by four horses near the river. All Greece leaving Amphipheus, and the grove of Molorcus, [i. e. *the olympic and Nemean games,*] shall contend in races and with the cest made of raw leather to honour me.

I my

myself, having my head adorned with leaves of
 olives *artfully* shorn, will bring offerings. Just now
 it is a pleasure to lead the solemn pomp to the
 temple, and to see the slain bullocks; or how the
 scene retires shifting its front, and how the Bri-
 ons woven in it support the purple tapestry. On
 the gates I'll represent the Indian battles in gold
 and solid ivory, and the arms of victorious Romu-
 us; and here I'll engrave the Nile greatly swelling
 and rolling with war, and pillars rising out of na-
 val brass. [i. e. *made of brass taken off the prows*
of ships.] I will add the vanquished cities of Asia,
 and the routed Armenian, and the Parthian trust-
 ing to his flight, and his arrows which he
 shoots backwards, and two trophies taken by force
 from different enemies, and the nations twice in-
 tirely subdued on both shores. There likewise
 shall stand breathing statues of Parian marble, the
 descendents of Assaracus, and the names of that
 family sprung from Jove, and Tros that great pro-
 genitor, and Apollo the founder of Troy; unfor-
 tunate envy shall dread the furies, and the dange-
 rous river Cocyrus, and the twisted snakes of Ixi-
 on, and the immense wheel and the insuperable
 stone.

In the mean time, Mecænas, let us enter the
 woods and the groves of the Dryades hitherto un-
 touched, a hard task *you have been pleased to en-
 joy me.* My mind begins nothing that is sublime
 without thee. Pray come break thro' all tedious
 delays; Cithæron calls us with loud shouts, and
 the hounds of Taygetus, and Epidaurus skilful in
 managing horses, and the noise being doubled is re-
 bellowed by the echo of the woods. Neverthe-
 less I'll soon prepare myself to sing Cæsar's hot
 engagements, and to celebrate his fame thro' as
 many

many cities as Cæsar's time is distant from the birth of Tithonus.

Whether any, admiring the rewards of the olympick palm, feeds horses, or strong bullocks for the plough, let his principal care be in chusing the bodies of the mothers. The best shape of a cow of a surly aspect, is when her head is ill-shaped, her neck large, and her dewlaps hang down from her chin to her knees; then her sides exceeding lough, all *parts* large, her feet also, and her ears heavy under her horns turn inward. Nor would I dislike a cow adorned with white spots, or that refuses the yoke, and sometimes pushes with her horn, is faced liker a bull than a cow, and which is tall and big over all, and walking sweeps her footsteps with the extremity of her tail. Their age for breeding, and for their just connubials, begins after four, and ends before ten years; the rest is neither fit for propagating, nor strong enough for the plough. In the mean time, while sprightly youth is vigorous in your flock, let loose your males; be you forward to send your cattle to engender, and propagate one race from another by generation. The best days of the life of wretched mortals fly away first, diseases succeed, and melancholly old age, and labour, [*or, pain,*] and the inclemency of cruel death drags us away. There will always be some whose kind you would be glad to change; therefore always repair your breed; and lest afterwards you should incline to have them again when lost, prevent this mischief, and renew a race in your herd every year.

Likeways the same care is *necessary* in chusing your horses. Be you sure to employ your principal care about those you design to set apart as stallions from their tender age. At his first appear-

ance

ance a colt of a generous kind walks with a lofty port in the fields, and shifts nimbly his pliant limbs, and hath the courage to lead the way, and to try threatening rivers, and trust himself to unknown bridges, nor doth he dread empty noises. His neck is high, his head slender, his belly short, his back fleshy, his fierce breast swells with brawny muscles. The bay and dapple-grays are beautiful; the pale, white, and sorrel, are the worst colours. Then, [i. e. *when they are of the first mentioned colour,*] if any arms at a distance have given a sound, he cannot stand still; he pricks up his ears, his joints tremble, and crubbing the contracted fiery heat he rolls it in his nostrils; his main is thick, and being tossed *by the wind* falls down on his right shoulder; a double chine divides his backbone, his hoof turns up the ground, and will make a heavy sound with its solid horn. Such was Cyllarus, tamed by the reins of Spartan Pollux, and the two horses yoked in the chariot of Mars, and the car of great Achilles, of which the Greek poets have made mention. Saturn himself, swift by the approach of his *jealous* consort, assuming such a shape, spread such a main over his neck, being metamorphosed into a horse, and flying *from her* he filled Pelion with his shrill neighing. Housè this stallion when he fails, being unweildy by disease, or lazy by age; excuse his honourable old age. The senior is cold in Venus's game, and in vain spins out his unpleasant task; and if at any time he comes to an encounter, he rages to no purpose, as sometimes a great fire in stubble without force. [*harm.*] Therefore chiefly observe his courage and age, after this his other arts, and of what parents he is descended, and how sad any of them are when overcome, or proud when they gain the prize. Do not

not you see when horses sprung forth into the fields run precipitantly in a race, and the chariots starting rush from their barriers; when the hopes of the young charioteers are raised, and panting fear draws their beating hearts *out of their place*; they ply with their twilted lash, and bending forward give loose reins; the glowing axel-tree flies with the violent motion. Now they seem low, now aloft flying thro' the empty air, and mounting the skies; no stop, no rest, but a cloud of sand is raised; they are wet with the foam and breath of those that follow. So great is their thirst for praise, so ardent are their desires for *victory*. Erichthonius was the first who had the courage to join four horses in a chariot, and when conquerors to stand on the rapid wheels. The Lapithæ of Peloponnesus mounted on their backs, added the bridle and the wheeling in rounds, and taught the armed horseman to prounce upon the ground and pace gracefully. The toil of both is equal; the masters [*i. e. the horsemen and charioteers*] with equal care select a young horse, fiery and fleet in running; *not an old one*, altho' he hath often driven the enemy put to flight *before him*, and altho' he boast of Epidaurus as his native soil, or brave Mycenæ, and may derive his race from the very breed of Neptune's horses.

These things being observed, they use all their endeavours, and employ all their care to make him plump and fat, whom they have made choice of, and appointed for a stallion to the herd; and they cut for him new sprung herbs, and give him pure water and wheat lest he should not be able for the pleasant toil, and lest the feeble race resemble their starved fathers. But designedly they macerate the females; and when the known delights first sollicit

their carnal desires *in the new season*, they deny them
 food, and drive them from the streams, and toil
 them also with often running, and fatigue them in
 the sun, when the barn-floor groans with the grain
 severely beaten *by the flail*, and the empty chaff is
 tossed by the rising zephyrs. They do this lest *
 * * * * *
 After this the care of the males begins to drop, and
 that of the mothers to succeed. When big with
 young they wander about, their months being com-
 mitted to them. Let none suffer them to draw the yoke in
 heavy waggons, or leap a ditch, or run swiftly o-
 ver the meadows, or swim rapid rivers. Let them
 feed in empty forests, near full rivers, where there
 is moss, and the bank is greenest with grass; let
 peat-bogs shelter, and rocks overshadow them.
 There are great swarms of flying insects about the
 groves of Silarus, and Alburnus green with oaks,
 which the Romans call Asilus, and the Greeks
 Orestes, a bitter creature making a harsh noise, by
 which whole herds fly from the woods; the sky
 being beat rings with their furious bellowings, al-
 though the woods and banks of dry Tanagrus. By
 this monster Juno long ago exercised her dreadful
 vengeance, having invented this plague to *punish* the
 daughter of Inachus turned into a cow. You shall
 also drive this from the teeming cattle, for it ad-
 vances more fiercely in the hot middle of the day,
 and you shall feed your herds when the sun is new
 risen, or when the stars introduce the night. After
 the birth all your care is transferred to the calves;
 forthwith they imprint marks and the names of
 their race, and distinguish such as they either in-
 digne should preserve the kind, or be kept desti-
 tute to the altars, and such as they would rather
 employ to labour an uncultivated field. The rest
 of

of the herd, *which are not marked*, are fed *promiscuously* among green grass. You must train such as you would form for business and country-service, while they are calves, and use constant endeavours to tame them while their young minds are flexible, while their age is docile. And first try about their necks loose collars of slender osier; after this, when their free-born necks are accustomed to slavery, join them when bullocks equally by those circles, and force them to go with an equal pace, and let them now draw empty wheels [*waggons*] along the earth, and imprint their footsteps lightly on the dust. After this let the beechen axle-tree moving with difficulty under the heavy load make a cracking noise, and the brazen beam draw along the wheels joined to it. Mean while you must not only bring in your hand, grass and fallow leaves, which may be eaten, and reeds which grow in marishes, but likeways crompt corn; neither shall your suckling cows fill the white milk-pails after the custom of your fathers, but they shall empty all their udders for their beloved offspring. But if your inclination rather leads you to war and fierce troops, or with your wheels to scour along the banks of the river Alpheus, and to drive flying chariots in Jove's grove, the horse's first labour is to behold the courage and arms of warriors, to endure the *sound of the trumper*, and to bear the rumbling noise of the chariot, and to hear bridles rattling in the stall; then more and more to rejoice in the flattering praises of the groom, and to love the sound of his clapped chest. Let him hear these when he is first weaned from his mother's teats, and now and then put upon him slender head-stalls, while he is yet weak and trembling, and not ignorant of the strength of his age. But when the fourth summer

summer comes, three being past, [i. e. *when he is entred into his fourth year,*] let him now begin to wheel in rings, and to make a sound with his hoofs when galloping, and let him bend the flexile sinews of his limbs alternately [*Probably by this is meant to pace and bound.*] with seeming labour. Then let him challenge the winds in swiftness, and flying over the open plain, as if without reins, let him scarce mark his footsteps on the surface of the sand. As when the north-wind blows strong from the country of Muscovy, and dissipates the storms and dry clouds of Scythia, then standing corns and the fields, *as if* floating, wave with his left blasts; the lofty woods make a loud sound, and the long billows press towards the shore; he flies sweeping at once both land and sea. Such a horse will either sweat at the goals, and in the spacious plains of Elis, and drive bloody foam from his mouth, or with a better grace he'll draw the Belgick chariots with his soft neck. At last suffer, when they are broken, their large body to grow fat with the best corn; for if [*they be high fed*] before they are tamed, they will grow fierce, and when catched refuse to suffer the pliant whip, and obey the hard bits. But no industry doth confirm their strength more (whether any delight most in keeping steers or horses for their use) than to avert Venus from them, and the sting of blind love; therefore they remove the bulls to distant fields and solitary pastures behind a mountain which interveens, and beyond large rivers; or they keep them housed at full mangers; for the female being in sight consumes and wastes their strength by degrees, and makes them unmindful of the groves and grass. This she does indeed by her sweet allurements, and often forces the proud rivals to

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combat

combat with their horns. A fair heifer feeds in a wide forest, the bulls with alternate strokes fight with great force and frequent wounds, black gore bathes their bodies, and their horns turned against their struggling enemy are pushed with loud bellowings; the woods and spacious heaven echo back the noise; nor is it the custom for these warriors to lodge together, but one of them when vanquished retires, and goes into exile in unknown distant coasts, bewailing with many groans his disgrace, and the wounds of the haughty conqueror, and the loves which he lost unrevenged, and looking back he leaves his hereditary realms: therefore he exercises his strength with the outmost diligence, and lies all night on a bed covered with flint-stones, feeding on prickly leaves and sharp-pointed sedge, and he tries himself, and learns to shew his resentment against his horns by struggling with the trunk of a tree, and pushes against the wind, and preludes to the war by spurning the sand; afterwards, when he hath gathered all his force, and his vigour returns, he decamps, and with the outmost speed rushes upon the enemy who had forgot the quarrel. As when a wave begins to whiten in the middle of the sea, and draws its long arch from the deep, and rolling towards the land roars hideously among the rocks, and falls down like a high mountain; but the water boils up from the bottom in whirl-pools, and throws up the sable sand a great height. Every kind of men on the earth, and of wild beasts, fishes, cattle, and of painted fowls, rush into this frenzy and fire; love is the same to all. A lioness, at no other time more cruel, ranges the fields, forgetful of her whelps; nor do the unshapely bears ever make so much havoc and slaughter every where thro' the woods;

then

then is the boar unmerciful ; then is the tyger most outrageous ; alas ! 'tis then ill travelling in the desarts of Africk. Don't you see how trembling seizes the whole body of the horse, if once the air wafts *to his nostrils* the well-known odour ? Then indeed neither the bridle of the rider, nor severe lashes, nor rocks, nor caves, nor interposing rivers that roll mounrains bearing them down in their stream, stop his career. Even the Sabin boar rushes forward, and whets his tusks, stamps and digs up the ground with his feet, and rubs his sides against a tree, and hardens his shoulders alternately against wounds. What does that youth in whose bones cruel love doth kindle a flame ? Why, late in the dark he swims the sea turbid with sudden storms, above whom the wide gate of heaven thunders, and the billows dashing against the rocks make a roaring noise ; nor can his wretched parents recal him, nor even his mistress ready to die a cruel death *dis-swade him*. What do the spotted lynxes of Bacchus, and the fierce race of wolves and dogs ? What battles and encounters do the timorous stags engage in ? But sure more than all the fury of mares is remarkable, and Venus herself gave them this, what time the Pornian coach-mares tore in pieces the members of Glaucus *their lord* with their grinders. Love transports them beyond Gargarus, and the sounding river Ascanius ; they climb over hills, and swim over rivers ; and immediately when the flame has seized their combustible marrow, especially in the spring, because in that season heat returns to their bones, all of them stand on high hills with their faces towards the west-wind, and receive its gentle breezes, and often without any males, wonderful to relate, impregnated by the winds, they fly over clefts, hills, and low valleys.

East-

East-wind, not towards thy rising, c^t the rising of the sun, nor towards the north or north-west, or where the south-wind blacker than any other rises, and saddens all the sky with cooling rains. Hence afterwards a viscuous poison distills from their womb, which shepherds aptly call Hippomanes, which cruel step-mothers gather, and mix with herbs and murdering spells. But in the mean while time flies, time which will never renew flies, while we, seized with a fond passion of *surveying nature*, insist upon every particular.

Let this suffice for herds. Another part of our care remains to manage woolly flocks and shaggy goats. This is a difficulty ; hardy swains, from this hope ye for praise. Nor do I doubt how great the labour is to raise these *mean subjects* with ~~the~~ *magnificence of words*, and to add this ornament to things inconsiderable ; but an agreeable passion transports me in rapture thro' the untrod-den heights of Parnassus ; I take pleasure to travel, on the tops of these hills, where no path of such as went before me doth incline by any easy descent to the Castalian *stream*. Now, venerable Pales, I must raise my voice in a lofty strain. First I ordain that sheep eat their fodder in well-bedded huts, till the leafy spring returns ; and that you litter the hard ground beneath them with straw and armfulls of ferns, lest the cold ice should hurt the tender cattle, and bring the scab and nasty gout upon them. Next, leaving these, I order you to supply your goats with arbut-leaves, and to give them fresh running water, and to build their cotes exposed to the winter sun, sheltered from the winds pointing to the south, when now cold Aquarius sets, and pours forth rain at the end of the year. These likeways are to be kept by us with no less care, nor will

will their profit be less, tho' Milesian fleeces dyed with Tyrian purple are sold at a great rate; from these you have more frequently an offspring; from them you have great plenty of milk; the more the pail foams, their udders being drawn, the larger rivers of milk will flow from their squeezed dugs. In the mean time, shepherds are no less careful in shearing the beards, and gray chins, and shaggy hair of the African goats, for the use of the camp, [i. e. for *tents*,] and rug-coats for poor sailors. They brouze on shrubs and the top of Lycæus, and thorny bramble and bushes which love to grow on heights. They remember to return of their own accord to their cotes, and bring their young with them, and scarce climb over the threshold with their strutting udders. Therefore you must with all dilligence avert from them the frost and snowy winds, the less careful they themselves are against the ills of life fatal to them; you must cheerfully bring them food and leafy browze; nor shall you shut up from them your hay-stacks the whole winter. But when the gay summer approaches, invired by the west-wind, send both flocks to the woods and pastures. Let us crop the cool fields when first the morning star appears, while the morning rises fresh, while the grass is white, and the dew on the tender herb is most agreeable to the cattle; after this, when the fourth hour of the day hath made them thirsty, and the querulous grasshoppers make a sound in the bushes, cause your flocks drink water running thro' wooden troughs at wells or deep ponds; but in the heat at noon seek a shady vale, if any where Jove's great aged oak extends its huge boughs; or if in any place a gloomy grove of thick holms may shelter them with its sacred shade. Afterwards, order to give

give them pure water a second time, and to feed them again at the setting of the sun, when the cool evening qualifies the air, and now the dewy moon refreshes the groves, and the shores resound with the musick of the king's fisher, and thorns with *that* of the linnet.

Why should I enlarge to you in my verse on Libyan swains, or insist upon their pasturages, and villages consisting of a few huts. Often they feed day and night the whole space of a month, and the flock goes in long desarts without any hospitable harbour; so much of field lies extended. The African shepherd brings along with him all his substance, his house, his household-gods, his arms, his Spartan dog, and his Cretian quiver. Just like the bold Roman armed after his country fashion, when he marches under a vast load, and before he was expected having encamped, stands in order of battle ready to receive the enemy. Not so among the nations of Scythia, nor near the lake Mæoris, or where the turbid Danube rolls his yellow sand, and white Rhodope extended *toward the east* returns beneath the north pole. There they keep their herds shut up in houses, nor does any grass appear in the field, or leaves on the tree, but the country lies void of all form and beauty under heaps of snow and thick ice far and near, and rises seven elns in height. It is always winter there, and continual cold north-west winds; besides the sun never dissipates the hazy fogs, neither when mounted on his steeds he ascends the lofty sky, nor when he washes his descending chariot in the red waves of the ocean. Sudden crusts of ice are congealed on running rivers, and the water now sustains on its back iron wheels; that which formerly was navigable by ships of burden, is now an

hostry

hostry for waggons ; brazen vessels split frequently, and garments become stiff with ice, and they cleave with axes wines *formerly* liquid, and whole standing pools are turned into ice, and rigid icicles freeze on their uncombed beards. In the mean time with no less violence it snows thro' the whole air ; the cattle die, large bodies of oxen stand surrounded with snow, and stags in a thick body are benumbed with the unusual weight, and scarce appear with their topmost horns. The inhabitants do not pursue these timorous creatures with hunting dogs, or any toils, or drive them with the fear of a line of crimson feathers, but approaching near they stab them with a spear, while pushing in vain against the opposing hills of snow, and kill them braying aloud, and joyfully carry them home with loud shouts. They themselves pass their time in ease and safety in caverns dug low under ground, and roll heaps of oak-trees to the hearths, and whole elm-trees, and throw them on the fire. Here they spend the night in play, and cheerfully supply the place of wine with beer and cyder. Such a lawless race of men ly under the stars toward the north pole, buffeted by the east wind from Muscovy, and clothe their bodies with their awny furs of beasts.

If wooll and the manufactory thereof be your care, in the first place keep your flocks from a prickly wood of burs and thistles ; shun luxuriant pastures, and forthwith chuse white flocks with soft fleeces ; but reject him, altho' he be a white ram himself, who hath a swarthy tongue underneath his moist palate, lest he discolour the fleeces of the lambs with black spots, and look out for another in your well-stocked field. Pan god of Arcadia deceived thee, Cynthia, thus allured by the gift

gift of white wooll, if the story deserves credit, calling you to the high groves, nor did you despise his invitation. But he who loves milk, let him bring in his hand frequently branches of the loretree, and clover-grass, and salt herbage to their cribs; by these they are the more in love with water, and distend their udders more, and thereby restore to the taste the hidden savour of the salt in the milk. Many restrain the kids when well grown from their mothers, and ty iron muzzle round their noses. What they milked with the rising morning, or in the day-time, they press at night; what at night, or with the setting sun, the shepherd about break of day carrying it in pails goes to the town, or they season it with a little salt, *being made in butter or cheese*, and lay it up against winter.

Nor shall your care of dogs be the last; but feed both the swift hounds of Sparta, and the bold Molossian mastive, with fattening whey. While they watch you shall never fear thieves by night your folds, or inroads of the wolf, or the cruel Spaniards *plundering* behind you. Also you shall often pursue timorous wild asses, and chase the hare with *gray-hounds*, and does with hounds. Often you shall frighten the boars forced from their dens in the wood, by the barking of your dogs, driving them before you, and force the stately stag over the lofty mountains, with a shoot, into your roils. Learn likeways to kindle in your stables sweet-scented cedar, and to drive away hurtful serpents with the smell of Galbanum. Often beneath fixed stables either the viper pernicious to be touched lurks, and being frighted flies the light, or the snake, accustomed to creep under a covert and shade, a dreadful plague to the cattle, and to spread its venom

thro' the herd, clings to the earth. Shepherd, take
 stones in your hand, take an oaken club, and beat
 him down as he begins to threaten and heave his
 hissing crest. Now in his flight he hides his fright-
 ed head deep in the ground, his middle folds are
 unfurled, and the motions of the extremity of his
 tail cease, and the last winding drags its lingering
 pires. There is likeways that very dangerous ser-
 pent in the woods of Calabria, rolling together
 his scaly back with his erected breast, having his
 his long belly speckled with large spots, who lives
 in standing lakes, while any riveres burst from
 mountains, and while the earth is moistened in the
 dewy spring by the rising southern winds, and, in-
 habiting the banks there, voracious he crams his
 filthy maw with fishes and croaking frogs. Af-
 ter the pond is dry'd up and the earth gapes by
 summer's heat, he springs to land, and rolling a-
 round his flaming eyes he rages in the fields, exas-
 perated by thirst, and frightened by the heat. May
 never incline to take sweet sleep in the open air,
 or lie on the græs under a shade of a grove, when
 renewed having cast his skin, and glittering in
 youth, he rolls, or leaving in his den his young or
 eggs, erect to the sun he brandishes his three-for-
 ed tongue.

I will also teach you the causes and signs of dis-
 eases. A filthy scab seizes the sheep, when the
 cold rain has peirced deep to the quick, or the
 winter rough with hoar-frost, or when the sweat
 washed away adheres to them when new-shorn,
 and prickly briers have torn their bodies. To pre-
 vent this swains wash their whole flock in sweet ri-
 vers, and the ram is plunged with a wet fleece in
 a deep pool, and being dismissed swims down the
 stream; or they besmear their bodies when shorn
 with

with the bitter lees of oil, and mix the spume of silver and living sulphur, and Idæan pitch, and fat wax, and sea-onion, and rank hellebore, and the slime of black bitumen. Yet there's no remedy for this disease more present, than if one can launce the orifice of the ulcer with a *sharpened* knife; the vice is nourished and lives by being hid, while the shepherd refuses to apply his healing hands to the malady, and sits praying to the gods for better fate. Besides, when the acute disease, having sunk deep into the bones of your bleating flock doth rage, and a hot fever feeds on their limbs, it will profit to avert the burning heat, and to strike the leaping vein underneath the foot, as the Bisaltæ practise, and the fierce Gelonus when he flies to Rhodope, and to the Getick desarts, and when he drinks milk cruddled with horses blood. Whatever sheep you shall see retire more frequent to the agreeable shade, or cropping the grass with languid jaws, or to lag behind, or ly down when feeding in the middle of the field, and to return lonely late at night, forthwith put an end to the infection, [*by killing the infected sheep*] with your knife, before the dire contagion spread thro' the unwary croud. A whirlwind driving before it a storm doth not so frequently rush from the ocean, as there are plagues among cattle; nor do diseases seize single bodies, but *sweep* thro' the whole summer-pasture on a sudden, and their hope and the flock at once, and thro' the whole race from the original. Then may he know this, if any even at present should veiw, after so long a time, the aerial Alps and German castles on eminencies, and the fields about Timavus, and the desert kingdoms of shepherds, and the forests desolate far and wide. In these places long since a dreadful plague arose from

from vicious air, and burnt during the whole autumn, and slew every kind of cattle and species of wild beasts, and poisoned the standing lakes, and tainted the pastures with contagious juice. Nor was the way of their death simple; but when the burning drought, shot thro' all their veins, had contracted all their joints, after this a waterish humor abounded, and converted into its own nature by degrees all the bones dissolved by the disease. Often amidst the sacrifices of the gods, the victim standing at the altar, while the woollen fillets are tied round its head with white ribbands, fell down dying between the hands of the lingering sacrificers; or if the priest had slain any, before *he died of the plague*, with his knife, the entrails of these neither burn being laid on the fire, nor can the seer consulted return any responses, but the knives thrust into the lower part of *their necks* are scarce dyed with blood, and the surface of the sand is stain'd with a little poison. By this calves die frequently among the rank grass, and render their sweet souls before the plenteous racks. By this plague madness seizes the fawning dogs, and a breathless cough shakes the sickly swine, and choaks them with a swelling throat. The conquering horse falls unhappy after all his noble exercises, unmindful of his food, and he forsakes his drink, and frequently paws the ground with his foot; his ears hang down; a sweat bedews him by fits, and he stands cold among those that are near death; his hide is parched, and resists the touch of those that handle him. At first they give these symptoms of their death; but if the disease begins to increase in process of time, then his eyes are flaming, and his breath drawn from the bottom of his breast is sometimes *uneasy to him* with groans,
and

and they descend the lowest of their entrails with sobbing; black blood issues from his nostrils, and his dry tongue sticks to his obstructed jaws. It was *formerly* helpful to pour into them a drench of wine thro' a horn put in their mouths; this seemed to be the only remedy to such as were dying: soon after even this proved their ruin, for being recruited they were fired with rage, and they themselves tore their mangled members with their bare teeth, near the time of their painful death. Ye gods reserve better things for the pious, and that distraction for our foes! But behold the bull smoaking falls down under the hard plough-share, and spues out of his mouth blood mixed with foam, and draws forth his last groan. The sorrowful plough-man retires, unyoking the other steer mourning for the death of his fellow, and leaves the plough fixed in the middle of the work. No shades of lofty woods, no soft meadows can move his soul, nor the stream which rolling over the stones glides into the field purer than amber; his long flanks hang flagging; drowsiness doth strongly invade his stupid eyes; his neck hangs drooping down to the earth with its own weight. What do his labours or good services avail him? What is he the better for having turned the stubborn earth? yet not the massick gifts of Bacchus, [*Campanian wine*,] nor undigested feasts, did them harm; they feed on leaves and the simple food of herbs and grass; limpid springs and running streams are their drink; nor doth care interrupt their healthful sleep. They tell us, that at no other time oxen were wanting for Juno's rites in this country, and that her chariots were drawn to the lofty temples by ill-paired buffaloes. Therefore with much fatigue they turn up the earth with harrows *instead of ploughs*, and thrust in the seed with their fingers, and

and draw rattling carts over high mountains with a strained neck. The wolf does not plot on the fold, nor in the night does he proul round the flock; a sharper care [*pain*] tames him. The fearful does and flying itags rove among the dogs, and round the houses. Now the waves wash the offspring of the vast ocean, the whole race of swimmers [*i. e. fishes*] are *cast out* upon the shore like ship-wrecked bodies. The sea-calves, contrary to their custom, fly into fresh water rivers, and the viper dies defended in vain by her winding den, and the snakes with their staring scales expire. The air is contagious to the birds themselves, and they leave their life in the high cloud falling headlong.

Besides, it does not avail to change food, and the arts of medicine sought after prove hurtful. Chiron the son of Philyra, and Melampus of Amythaon, these excellent physicians, withdrew *in despair*. Tisiphone sent from the dark mansions to light rages, and drives before her diseases and fear, and rising every day lifts up her greedy head higher. Rivers, dry banks, and sloping hills, resound with the bellowings of large cattle, and the frequent bleating of sheep; and now she kills whole herds at once, and heaps up in the stables carcasses dissolved with nasty poisonous gore, till they learn to cover them with earth, and bury them in ditches; for neither were their skins for use, nor could any man make their flesh clean with water, or conquer *the nauseous stink* with fire, or even shear their fleeces wholly consumed by the disease and nasty sore; nor can they touch the rotten webs; yea also, if any tried to wear this hated clothing, burning blisters and a nasty sweat cleave to their stinking members, and in a short time the sacred fire devoured their tainted limbs.

THE

THE FOURTH Book of Georgicks.

NOW I proceed to describe the celestial gifts of aerial honey. [*The bees extract boney from flowers covered with dew that falls from the air.*] Mécænas, look favourably upon, [*or, vouchsafe to peruse,*] this part of my work also. I'll set before you the wonderful appearances of small insects, treat of heroick generals, the manners, studies, various kinds, and battles of the whole race, in order. My labour is upon a small subject, but the glory not small, if the unpropitious deities permit any to prosecute this design, and Apollo being invoked do hear.

In the first place, you must look out a seat and station for the bees, to which neither winds have access, (for the winds hinder them to carry home their forrage) nor where the sheep or wanton kids may leap upon the flowers, or the heifer roaming over the field shake off the dew, or crush the rising herbs. Let the lizards, which have their backs painted, [*speckled,*] be kept at a distance from their rich hives; also the woodpecks, and other birds, and the swallow having her breast dyed with bloody hands; for they make havock of all far and near, and carry off in their mouth the bees themselves catcht whilst flying, a luscious morsel to their merciless young ones. But let crystal

foun-

fountains, and ponds verdant with moss, be near, and a small brook running swiftly thro' the grass, and a palm-tree, or huge wild olive, overshade the entry; that when their new kings lead out their first swarms in a favourable spring, and the youth sent from the combs do play, a neighbouring bank may invite them with its hospitable leafy boughs. Whether your water stand without motion, or flows, throw into the middle thereof willows across, and great stones, that they may stand on frequent bridges, and expand their wings to the summer sun, if by chance the boisterous east-wind hath sprinkled them lingering in the fields with rain, or plunged them in the waves. Near these let verdant lavender, and savory which sheds its sweets around, and plenty of strong-scented thyme, bloom, and let beds of violets drink the watering stream. But whether your hives be sewed with hollow barks, or woven with small osier twigs, let them have narrow entries; for the winter congeals the honey with its cold, and the heat melts and dissolves it; the violence [*excess*] of both is equally formidable to the bees. Nor is it in vain that they strive to bedaub the narrow crannies of their cells with wax, and fill the extream chinks [i. e. *such as are nearest the stone or board on which their hive doth stand*] with gum and flowers, [i. e. *matter extracted from them*,] and keep in store glew gathered for these very uses, more clammy than birdlime, and the pitch of mount Ida in Phrygia. Often also (if fame be true) having sprung mines into caverns, they have dug their mansions under ground, and have been found far below the surface in hollow pumice-stones, or the cavity of an old rotten tree. Nevertheless, to keep them warm, both plaister their chinky chambers around with smooth

smooth clay, and lay over this thin leaves. Nor suffer the eugh to grow near their mansions, nor burn red crabs in the fire; nor trust them near to deep waters, or where there is a noisom stench of dung, or where concave rocks resound being struck, and the image of a voice, [*the echo,*] as if offended, rebounds. As to what remains, when the glorious sun hath driven the winter beneath ground, [*from our hemisphere,*] and opened the heaven with a warmer light, then they rove over the forests and woods, and reap the purple flowers, and nimbly sip the surface of the rivers. From this time, [*or, from these flowers, &c.*] charmed with I know not what delight, they cherish their young offspring; from these they artificially extract their new wax,* [*or, after this they build their waxen cells,*] and make their glutinous honey. Afterwards, when you shall behold a squadron sent from the hives, swimming thro' the serene warm air, and soaring to the stars, and wondring shalt see a dark cloud wafted by the wind, observe, they always seek sweet waters and leafy bowers. Here do you sprinkle these prescribed odours, pounded baum, and the vulgar flower of honey-suckle; raise a tinkling noise, and shake round them cymbals of mother *Cybele*. They themselves will settle on these places you have prepared for them, and retire into the innermost recesses of their hives, according to their custom. But if they go out to battle, (for very often discord happens betwixt two kings with great fury) you may instantly know before hand, even at a distance, the animosities of the populace, and their hearts trembling with an eager desire of war; for the martial clangor of the hoarse brass chides the laggards, and a noise is heard resembling the broken sound of trumpets. Then they

they eagerly engage, and rustle with their wings; and whet their stings with their beaks, and fit their arms *for battle*, and in a close body they muster round their king, and at the royal tent itself, and challenge the enemy with loud cries; they encounter; there is a noise in the high air; both bodies join in one huge cluster, and fall down headlong. Hail falls no thicker from the air, nor so many acorns from a shaken oak. The kings themselves in the middle of their armies, with conspicuous wings, exercise great souls in little bodies, resolute not to yeild, till the terrible conqueror forces either these or those to turn their backs in flight. These commotions of their minds and dreadful encounters will cease, being put to an end by throwing up a little dust. But when you have recalled both generals from the field of battle, put to death him who appeared the worst, lest being a prodigal he do harm; [i. e. *consume their store*;] suffer the better to reign in his court alone, *without any rival*. The one will appear glaring with spots shining with gold, (for there are two kinds) this is the best, and has a beautiful aspect, and is bright with glittering scales; the other horrid with sloth ingloriously trails along a large belly. As there are two forms of their kings, so are the bodies of the people; for some being foul are of an hideous hue, as a thirsty traveller, when he comes from a very dusty way, and spits clay from his parched mouth; others shine and glister with their brightness glowing with gold, and their bodies are decked with equal spots; [i. e. *spots of an equal bulk, and at an equal distance*;] this is the best race; from these you shall squeeze delicious honey at a certain time of the year, yet not so sweet, as pure and fit to allay the harsh taste of wine. But when

the swarms fly uncertain *where to settle*, and sport in the air, and despise their combs, and leave their cold mansions, you shall avert their fickle minds from this unprofitable play; nor is it a hard task to restrain them; pull the wings from their kings; while they stay behind, none dare go their lotty [*airy*] journeys, or pull up their standards in their camps. Let gardens breathing with sweet-smelling flowers invite them, and let the guardianship of Hellepontiac Priapus, [i. e. *Priapus worshipped at Lampsacus near the Hellespont,*] who drives away thieves and birds with his wooden scythe, protect them. The peasant himself who is careful about them, bringing thyme and pines from high mountains, let him plant them far and near about their mansions; let him harden his hand with severe labour; let him fix fertile plants in the ground, and water them with friendly [*refreshing*] showers.

And indeed, if I was not now furling my sails towards the end of my *rural* labours, and hastening to turn my fore-castle to land, perhaps I might sing what care in cultivating would adorn fruitful gardens, [*with what care and diligence fruitful gardens are to be cultivated and adorned,*] and of the rose-plots of Pæstum which bloom twice a year; and how endive, and the banks green with parsley rejoice, having drunk in the rills, and how the cucumber winding thro' the grass might grow into a belly; nor would I pass in silence the late-flowering daffodil, or the stalk of the flexile brankurfine, pale ivy, and the myrtles which love shores. For I remember to have seen a Cilician old man, under the lofty towers of Tarentum, where black Galefus moistens the yellow fields, who had a few acres of barren ground left him in heritage; [*or deserted by every body;*] it was nei-

ther

ther good for tilling, nor was the product fit for cattle, nor was this soil fit for vines; yet even here, he planting a few pot-herbs among the brambles, and white lillies around them, and vervain, and wholesom poppy, he equalled the wealth of princes by *the contentment* of his mind, and returning home late at night, he loaded his table with dishes which he did not buy. He was the first who plucked the rose in the spring and apples in autumn, and even when the lowring winter did split the stones with its cold, and restrained the course of rivers with ice, even then he pruned the top of the lofty brankursine, chiding the slow summer and lingering zephyrs.

Therefore he was the first who abounded in fruitful bees and many swarms, and squeezed the frothing honey from the pressed combs. He had linden and most fruitful pine-trees; and as many apples as the fruitful tree put on in its new blossom, so many it did bear ripe in the autumn. This man also disposed his late-grown elms in rows, and the hard pear-tree, and black thorns *being ingrafted* even then bearing plumbs, and the plane-tree which by this time affords a shade to bottlers. But I pass these, being confined in narrow bounds, and leave them to be insisted upon by others after me.

Now I'll describe what nature Jove himself hath given to the bees; for which reward, following the sound of the priests of Cybele, and the tinkling brass, they fed the king of heaven beneath a Cretian cave. They alone *of all animals* have common offspring, and houses in their cities in common, and pass their lives under unalterable laws; they alone *of all irrational creatures* know their native country, and fixed mansions, which
always

always they find out, and mindful of the approach-
 ing winter, toil in summer, and lay up their pur-
 chase for a common store. For some carefully
 provide food, and by a joint compact are employ-
 ed in the fields; part lay within the confines of
 their houses the tears of the daffodil, and clammy
 gum from the bark of trees, as the ground work
 of their combs, upon this they hang tough wax;
 others lead out their adult young, the hope of the
 nation; some lay up [*or, condense*] their most pure
 honey, and distend their cells with liquid nectar.
 There are others to whom the custody of the gates
 falls, and in their turn observe the rain and clouds
 of heaven, or receive the loads of those that come
 home, or having formed themselves in troops beat
 off the drones, a lazy cattle, from their hives.
 The work goes warmly on, and the fragrant honey
 smells fresh of thyme. As when the Cyclops in
 haste make thunderbolts of masses of iron soften-
 ed *in the fire*, some receive and render back the air
 by bellows of bulls hides, others plunge the hissing
 brass in water; Ætna groans under the anvils;
 they raise their arms with great force observing a
 certain order among themselves, [*or, keeping time
 with one another,*] and turn the mass with their
 gripping tongs. Just so (if we are allowed to
 compare great things with small) an innate love
 of getting prompts the Athenian [*industrious*] bees,
 every one in his own office. The aged take care
 of their cities, and fortify their combs, and build
 their artificial houses; but the youth wearied re-
 turn late at night, having their legs full-laden with
 thyme; they feed every where on crabs and gray
 willows, lavender and the red saffron, and gummy
 linden and the purple hyacinth. All of them rest
 from their work, all toil at the same time. In the
 morning

morning they rush out at their gates, stopping nowhere. [i. e. *loitering nowhere.*] Again, when the evening warns them to return from feeding in the fields, then they go home and refresh their bodies. There is a humming noise, and they murmur round the sides and at the entrance. After they have reposed themselves to rest in their beds, there is silence all night; sweet sleep takes place in their weary limbs. Nor do they go far from their hives while rain impends, or trust themselves to the air when wind is rising; but safe they drink water beneath the walls of their city, and try short excursions, and often lift up pebbles, as boats floating on the waves take in ballast against the tossing billows, and with them they poise themselves in the void air. You will wonder that this custom hath so much pleased the bees, that they neither indulge themselves in copulation, nor abandoned to sloth do they enervate their bodies by lust, or bring forth their young with throws; but they cull their offspring with their mouth from leaves and sweet herbs; *from thence* they provide themselves in a king and little subjects, and repair their courts and waxen kingdoms. Often also they tear their wings by roaming among hard rocks, and of choice die under their burden; such a violent passion have they for flowers, and such a thirst after fame by making honey. Therefore, tho' a short term of life doth confine them, (for they do not survive seven summers) their race remains immortal, the fortune of the family stands, and grandfathers of grandfathers are reckoned. Besides, Egypt, and spacious Lydia, or the Parthians, or Indians, do not adore their king with such zeal. Their king being safe, they are all unanimous; he being lost they dissolve society, and they themselves pull down
the

the honey they laid up in store, and loose the texture of their combs. He presides over their works, him they admire; and all surround him in a thick body humming, and in crouds guard him, and often lift him on their shoulders, and expose their bodies in war, and court a glorious death by wounds in his defence. Some indeed, by these appearances, and led by these instances of *reason*, have said that the bees have part of the divine mind, and heavenly spirits, and that God diffused himself thro' the whole earth, the extent of the sea, and the high heaven. Hence cattle, herds, men, and every kind of savage beast, and all at their births receive a subtil soul; that all indeed are returned, and being dissolved are brought back to him, and that there is no room for death, but being alive *all* fly to the number of their proper star, [i. e. *to those stars to which they are destinated,*] and soar to the high heaven.

If at any time you incline to break upon their narrow cells, and the honey kept in their treasures, first refresh your jaws spouting out a mouthful of water upon them, and hold out in your hand smoke to persecute them. [*This is a difficult Sentence. The meaning is, when you design to take the honey from your bees, without killing them, in the Spring, spout mouthfuls of water upon them, to cause them keep within their hives, as if it rained; then smoke them so as to cast them into a swoon, till you have robbed them of their honey. Or thus, Spout a mouthful of water on such as attack you, then with the smoke of a torch in your hand drive them away, until you have rifled their houses. Twice they squeeze their heavy combs, [or, twice the bees condense honey,*] there are two honey-harvests; as soon as Taygete one of the Pleiades shews her beautiful face to the world,

world, and spurns with her foot the despised waters
 of the ocean; or when the same Pleiad, flying the
 constellation of the showery Fish, more sorrowful
 descends from heaven into the winter-waves. [*The
 meaning is, in spring or autumn.*] The bees are be-
 yond measure passionate, and when hurt they in-
 spire venom into their stings, and clinging close to
 the veins they leave their hidden darts, and lay down
 their lives in the wound. But if you be afraid of
 the hard winter, and will provide for the time to
 come, and if you pity their crushed spirits and bro-
 ken fortunes, who would doubt [*refuse*] to perfume
 them with thyme, and cut off the empty wax? For
 often the lizards unobserved consume their
 combs, and their chambers are filled with beetles
 that shun the light, and the idle drones sitting at
 other people's provisions; or the fierce hornet joins
 in battle with unequal arms, or the cursed moth,
 or the spider hated by Minerva hangs her loose
 nets [*webs*] at their gates. The more they are ex-
 hausted, they all labour with greater diligence to re-
 pair the ruins of the sinking family, and they'll fill
 their cells, and work their combs *with matter ex-*
tracted from flowers. But if their bodies languish
 by a sore disease, (for life brings upon them mis-
 eryes as well as on us) this you may know by certain
 symptoms; forthwith the sick bees change their
 colour; a ghastly leanness disfigures their counte-
 nance; then they carry the corpses of their dead
 out of their houses, and sorrowfully attend their
 funerals, or clasping *each other* with their feet, they
 hang in the entries, or all of them confined within
 loiter in their cells, and are unactive with hunger,
 and lazy with the cold they have contracted. Then
 a heavier hum is heard, and they whisper long; as
 when the cold south-wind murmurs among the
 woods,

Woods, or such a noise as the disquieted sea makes by the ebbing and flowing waves, or as a rapid fire glows pent up in a furnace. Here I'll advise to burn the strong-scented galbanum, and to convey honey thro' pipes of cane. It will further profit, when you are inviting and calling these sick bees to their well-known food, to mingle the juice of pounded acorns and dry roses, or new wines made rich by much boiling, or dried raisins from the Pythian vine, or Athenian thyme and rank-smelling centaury. There is likewise a flower in the meadows, which husbandmen call starwort, easily found by such as seek it, for it raises a mighty grove from one turf; the stem itself is of a golden colour, but in its leaves, which in great abundance are spread around it, the purple colour of a black violet doth faintly shine. Often the altars of the gods are adorned with its twisted wreaths; it is harsh to the taste; shepherds gather this herb in mowed valleys, and near the winding streams of Atella. Boil the roots of this in generous wine, and set it down in the entry of *their hives* for food in full bowls. But if any man's whole stock of bees shall die on a sudden, and he shall have nothing whereby the brood of a new race may be restored, it is time to discover the memorable invention of the Arcadian bee-master, and how, having slain heifers, the putrid gore often hath bred bees. I will relate the whole story tracing it from its first source. For where the happy nation of Canopus, near Alexandria, doth inhabit the river Nile [i. e. *the fields near the river Nile*] stagnating by its overflowing water, and where they are carried round their estates in painted barges, and where the coasts contiguous to quiver-bearing Persia hem in, and the river that comes from the swarthy Indians fertilizes

makes Egypt with its sable sand, and running with
 an impetuous current discharges itself into seven
 mouths, [i. e. *discharges itself into the sea by seven
 mouths,*] all this region places the hopes of certain
 relief in this art. First a narrow place is chosen,
 and contracted for that very use; they cover this
 with a narrow roof of tyle, and add four windows
 of a slanting light from the four winds; then a
 bullock is sought bending his horns on his forehead
 two years old; they stop both his nostrils, and
 the breath of his mouth, while he struggles much,
 being killed with blows, his battered entrails pu-
 rify within his hide, which remains entire; thus
 they leave him pent up in this close place, and lay
 under his sides broken branches, thyme and fresh
 lavender. This is done when the zephyrs first ruffle
 the waters, before the meadows are ennamelled with
 new flowers, before the prattling swallow hangs
 her nest on the rafters. In the mean time a warm
 liquor ferments in the tender bones, and animals
 are to be seen in a wonderful manner, first want-
 ing feet, soon after humming on their wings, and
 more and more they attempt to fly in the thin air;
 till at last they break out as a shower poured down
 from summer-clouds, or as arrows from the push-
 ing string, if at any time the nimble Parthian first
 engage in battle. Ye muses, what god, what man
 invented this art for our profit? from whence did
 this new experiment of mankind take its rise?

The shepherd Aristæus flying Peneian Tempe,
 having lost his bees by diseases and famine, as the
 story goes, stood sorrowful at the sacred source of
 the river, [*the source of the sacred river,*] pouring
 out many complaints, and thus addressing his pa-
 rent; Mother Cyrene, mother, who dost inhabit
 the bottom of this stream, why did you bring me
 P. forth

forth (hated by the fates) of the illustrious race of the gods ? (if it be true that Apollo worshipped at Thymbra is my father, as you say.) What is become of your maternal affection towards me ? Why did you bid me hope for heaven ? Behold, tho' you are my mother, I lose the honours of this mortal life, which my ingenious management of cattle and corns with difficulty procured me while trying every project. But go on, and with your own hand pull up my fruitful trees, bring destructive fire to my stables, murder my harvests, burn my crops, and force a strong ax against my vines if you have conceived such an indifference about my fame. But his mother heard his wailing complaints beneath the chambers of the deep river. The nymphs around her did spin Milesian wool dyed a deep green colour ; Drymo, Xantho, Ligaea, and Phyllodice, having their bright hair hanging over their snow-white necks ; Nisæe, Spio, Thalia, Cymodoce, Cydippe, and yellow Lycorias, the one a virgin, the other having felt the first pangs of Lucina, [i. e. *having brought forth her first child,*] and Clio, and Beroe her sister, both daughters of the ocean, both clad in gold and spotted skins of beasts, and Ephyre, and Opis, and Asian Deiopeia, and nimble Arethusa, that at last had laid down her arrows ; amongst whom Clymene related the fruitless precaution of Vulcan, the wiles of Mars, and his delightful rhetts ; and she reckoned up the numerous amours of the gods from the original of the world. Charmed with which song, while they spin their soft tasks on their distaffs, the mournful complaints of Aristæus once more struck his mother's ears, and all of them sitting on their green seats were amazed : but Arethusa looking up before the rest of her sisters, raised

and her lovely head above the surface of the waters,
 and at a distance said, O sister Cyrene, not in vain
 alarmed with such loud groans, he himself, your
 greatest concern, sorrowful Aristæus, stands shed-
 ding tears to thee at the river of his father Peneus,
 and calls thee cruel by name. His mother having
 her mind struck with new fear, says, Haste, con-
 duct, conduct him to us; it is allowed him to touch
 the thresholds of the gods; at the same time she
 orders the deep river to retire to a considerable dis-
 tance, that the youth might enter. A wave did
 surround him arched like a mountain, and receiv-
 ed him into its vast bosom, and suffered him to
 pass beneath the flood; and now he went admir-
 ing his mother's court, and her humid realms, and
 takes shut up in caverns, and sounding groves; and
 being astonished at the great motion of the waters,
 he saw all the rivers which run under the spacious
 earth in different places, Phasis and Lycus, and the
 source from whence deep Eniplus bursts out, where
 rather Tiber and the floods of Anio take their rise,
 and Hypanis that makes a rumbling noise among
 the rocks, Mysian Caicus, and the bull-faced Po
 with its gilded horns, than which no river runs
 with a more rapid current thro' the fertile fields
 into the glittering sea.

After he came into his mother's bed-chamber
 washed with pumice, and Cyrene understood the
 fruitless tears of her Son, the sisters in order pour
 clear fountain-water upon his hands, and bring
 soft smooth towels. Some load the tables with
 dishes, and set down full bowls; the altars burn with
 Arabian frankincense, and his mother says, Take
 these goblets of Lydian wine, let us pour out liba-
 tions to the ocean; at the same time she prays to
 the ocean the father of *all* things, and to the nymphs
 her

her sisters, who preside over a hundred woods and as many rivers; thrice she sprinkled the clear fire with liquid nectar, thrice the flame mounting to the ceiling shone bright; with which omen fixing his mind, [*or, encouraging him,*] thus she began.

There is a prophet in the Carpathian gulph, azure-coloured Proteus, who glides over the vast ocean *carried* by fishes, and in a chariot in which are joined two-legged *sea-horses*. At present he revisits the harbours of Macedon, and his native country Pallene. We the nymphs worship him, and aged Nereus himself; for the prophet knows all things which are present, past, and to come. For such was Neptune's pleasure, whose monstrous herds and shapeless sea-calves he feeds under the water. My son, he is first to be clapt up by you in fetters, that he may unfold to you the whole cause of his disease, and bless you with success; for he will give you no counsel without force, nor will you move him by intreaties; apply down right force and chains to him when caught; his wiles will be baffled while *he struggles* against them. I myself, when the sun inflames the meridian, when the herbs are thirsty, [*scorched,*] and the shade is most agreeable to cattle, will conduct you to the secret recess of the old Man, whether when wearied he retires from the sea, that you may easily attack him while he lies asleep. But when you shall hold him claspt in your arms, and bound with chains, then various shapes and forms of wild beasts will cheat your sight; for on a sudden he will appear a bristly boar, and an horrid tyger, and a scaly dragon, and a lioness with a yellow main; or he'll make a crackling noise of fire, and so slip out of the chains, or dissolved into pure water he will glide away; but, my son, the

more

more he changes himself into all kinds of shapes, draw the chains which confine him the closer, until, having changed his body, he be such as you saw him when he shut his eyes beginning to sleep.

Thus she said, and poured forth the liquid odours of Ambrosia with which she anointed the whole body of her son. A pleasant smell breathed from his perfumed hair, and necessary vigour was infused into his joints. There is a spacious grotto in the side of a hollow mountain, [*exesi, eaten with age,*] into which much sea is driven by the wind, and cuts itself into a winding bay, heretofore a safe harbour for mariners caught in storms. Proteus shelters himself within *this cavern* with the bar of a huge stone. [*i. e. with a huge stone which lies on the cavern's mouth, in place of a door.*] Here the nymph places the youth in a dark corner secluded from the light, she herself stays at a distance obscure in a cloud. Now scorching Sirius, roasting the thirsty Indians, was all on fire in the heaven, and the fiery sun had parched the middle globe; the herbs burned, and the rays boiled the hot deep rivers to the mud; [*the channels were dry;*] when Proteus went out of the waves repairing to his usual cave, his wet flock, *the offspring* of the huge ocean, skipping round him, shake off the briny dew far and near; the sea-calves scattered over the shore reposed themselves in order to sleep. He himself (as sometimes the keeper of the herd on the mountains, when the evening-star brings back the calves from their pasture to their cotes, the lambs being heard whet *the appetite* of the wolves with their bleating) sits in the middle on a rock, and counts their number. Seeing an opportunity was offered to Aristæus to seize him, he scarce suffered the old sire to compose his weary limbs;

limbs; he rushes upon him with a great shout, and bound him with chains as he lay. He on the other hand, not unmindful of his art, transforms himself into all wondrous forms, of fire, a horrible wild beast, and a flowing river. But when none of his tricks found out a way to escape, he being overcome returns to himself, and at length spoke with the accent of a man. Most presumptuous youth, says he, who ordered you to come to my habitation, and what do you seek here? Then he replied, You know, Proteus, you yourself know, nor is it in the power of any to cheat you, but lay aside your inclination to deceive me, following the commands of the gods, I am come hither to ask advice how to repair my broken fortune. He said no more. In answer to these the prophet at length with great fury rolled his green eyes sparkling with fire, and fiercely gnashing his teeth thus opened his mouth disclosing the fates. The wrath of some deity pursues you. You smart for some great crime. Orpheus, unhappy not on account of his own guilt, begins to excite this vengeance [*all of which will certainly fall upon you*] unless the destinies oppose, and rages furiously for his bride snatched from him. That virgin doomed to dy running with full speed, while she fled from you near the river, did not perceive the monstrous serpent lurking on the bank among the high grass. But the quire of woodland nymphs her equals filled the lofty hills with shrieks; the Rhodopeian mountains wept, and the high rock of Pangea, and the warlike country of Thrace; the Getæ, Hebrus, Aetian Orithyia. Orpheus solacing his uneasy love on a hollow harp, sweet bride, while alone, did sing of thee on the desert shore; of thee at the approach of the day, of thee at the departure thereof.

thereof. He likewise entred the jaws of Tænarus, the infernal gates of Pluto, and the grove dark with gloomy horror, and went to the ghosts below, and the tremendous king, and the souls that know not how to relent at human prayers; but the thin phantoms, charmed by his song, advanced from the lowest mansions of hell, and the spectres of those that were deceased; as many thousands as there are of birds which take shelter in the woods, when the evening, or a winter shower, drives them from the mountains; matrons and husbands, souls of dead magnanimous heroes, boys and unmarried girls, and young men who were laid on funeral piles before the faces of their parents, whom the black mud and nasty reeds of Cocytus, and the unlovely lake with its slow waves hem in on every side, and Styx nine times interfused doth confine; even these *infernal* houses were astonished, and the lowest dungeons of death, and the furies whose hair was twisted with blew serpents, and Cerberus yawning began to snarl with his three mouths, and Ixion's wheel stood still by a contrary wind. And now returning he had escaped all accidents, and Eurydice being restored to him approached the world above, following behind; for Proserpine had given that law; when a sudden frenzy seized the unwary lover, a pardonable *crime* indeed, if the infernal gods knew to pardon. [*could pardon.*] He stood still, alas! unmindful and overpowered by his passion, and looked back on his Eurydice, by this time on the very verge of light. There all his labour was lost, and the conditions of the cruel king were broke, and thrice a shout was heard from the infernal lake. She says, Who, Orpheus, who hath undone both wretched me and thee? What great fury is this? Behold the cruel
fates

fates call me back again, and sleep seals my swimming eyes; and now, farewell; I am carried away wrapt up in dark night, and, ah me! not thine, holding out to thee my feeble hands. She said, and on a sudden fled a different way from his sight, like smoke mixt with thin air; nor did she see him afterwards in vain grasping at shades, and inclining to speak much; nor would the ferryman of hell suffer him again to pass the interposing lake. What should he do? Where should he go, his bride being twice snatched away? With what tears, with what intreaties could he move the infernal powers? She indeed, now cold, sailed in the Strygian boat. They say, that he wept seven whole months without intermission under a lofty rock, at the waters of unfrequented Strymon, and revolved in cold caves these his disasters, softening the tygers, and making the oaks move with his song; as the nightingale in mournful strains bewails beneath a poplar shade her lost young, which some hard-hearted swain espying pulled out of their nest unfeathered; she weeps all night, and sitting on a branch renews her doleful song, and fills all places far and near with her mournful complaints. No love, no match could move his soul; alone he wandred over the northern ice, and snowy Tanais, and the Scythian fields which are always covered with hoar-frosts, deploring the loss of Eurydice, and the vain gift of Pluto. The Thracian ladies, whose nuptial offers were contemned, strewed the mangled *carcase of this* young man alongst the spacious fields, at the sacrifice of the god, and the nocturnal rites of Bacchus. Even then when Thracian Hebrus rolled his head torn from his beautiful neck, carrying it in the middle of the stream, his *last* word and cold tongue called

Euri-

Eurydice ! ah, wretched Eurydice ! when his soul was flying away, the banks with the whole river resounded Eurydice. Proteus spoke thus, and threw himself into the deep sea, and where he fell he curled the foaming billow round his head.

But Cyrene did not so ; for she first spoke to him trembling : My son, you may lay aside your perplexing cares ; this is all the cause of their distempers ; upon this account the nymphs, with whom Eurydice joined in dances in the high groves, have sent this deplorable destruction to your bees ; do you as a suppliant offer gifts, seeking pardon, and adore the easy forest-nymphs, for they will grant you pardon upon your supplications, and lay aside their wrath. But I will first instruct you after what manner you are to pray to them. Chuse four stately bulls of a beautiful form, which now feed on the top of green Lycæus, and as many heifers that never felt the yoke ; for these erect four altars in the lofty temples of the goddesses, and cause the sacred blood pour from their throats, and leave the bodies of these victims in a shady grove. Afterwards, when the ninth morning shall shew its dawn, you shall send drowsy poppies to Orpheus, a sacrifice to the infernal gods, and shall worship appeased Eurydice with a slain calf, and sacrifice a black ewe, and review the grove.

Without delay he obeys his mother's orders ; comes to the temple ; raises the altars which she enjoined ; brings four stately bulls of a beautiful form, and as many heifers that never felt the yoke. Afterward, when the ninth morning began to appear, he sends a sacrifice to Orpheus, and returns to the grove. Here indeed they see an unexpected prodigy, wonderful to relate, bees making a humming

Q

noise

noise thro' the whole belly among the putrified entrails of the steers, and forcing their way hastily thro' the broken ribs, and great *swarms of them like clouds swimming in the air*, and at length alighting all at once on the top of a tree, and hanging down *like clusters of grapes* from the limber branches.

These things have I sung of agriculture, cattle and trees, while great Cæsar thunders in war near the deep Euphrates, and victorious dispenses laws to nations willing to obey him, and affects the way to heaven. Pleasant Naples maintained me Virgil, at that time flourishing in the studies belonging to a private easy life, who have played the lays of shepherds, and being of a daring spirit by the heat of youth, I have sung thee, Tityrus, beneath the covert of a broad beech-tree.

A P P E N D I X.

Aerii mellis cœlestia dona.

The divine Goodness appears in commending *Canaan* as a Land flowing with Milk and Honey, pointing us to two most wholsom and nourishing Foods, agreeing with every sound Constitution. The one our first and natural Food, which frequently proves restorative. The other is allowed; by some Physicians, to be a most excellent Preserver of Health, and so medicinal, that they say, when it agrees with the Constitution, no other Medicine is needful.

I have seen a Manuscript wrote by a Gentleman in *Fyfe*, advising to keep such a Stock of Bees

as will pay for a Servant to attend them all the Year. It is certain, that a much greater Stock might be kept on some Grounds, than what is usual. A Friend of my own disposing a Hive full of Bees, because they wanted Winter-Store, complimented a Gentleman with it, who, at different Times, put as much Water in a Plate as dissolved three Quarters of a Pound of Sugar ; upon this he laid narrow Pieces of Paper to prevent drowning, and placed the Hive above the Plate ; the Bees sucked all up in a little Time, and were preserved all Winter, and did thrive well next Summer. The whole Quantity of Sugar which he gave them was four Pounds.

APPEN-

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APPENDIX

TO THE

GEORGICKS.

THO', for Man's Transgression, the Earth lies under a Curse, yet it is not doomed to such a Degree of Barrenness, as that there is not a Blessing reserved for Labour and Industry. The supreme Being is the most active, and delights in whatever resembles himself in the smallest Degree; and therefore rewards always the same, one Way or other. By his kind Providence, the lawful, vigorous, rational Endeavours, not only of particular Persons, but likewise of Societies and Nations, are crowned with Success. How do some flourish by Agriculture, Manufactory and Trade? By these they reach the Height of Grandeur and worldly Happiness. I mentioned Agriculture first, because, as Trade depends much upon Manufactory, so both are chiefly founded upon Agriculture; therefore it deserves the Precedency.

How happy is *England*, whose Merchants are rich and opulent, whose Trade is only bounded by the habitable Earth, whose Manufactories of Silk, Wooll, Linen, Cotton, hard Ware, Hats, Shoes, &c. are numerous? Which Country, for the most

Part, appears like a Garden, being well manured, cultivated and improven, producing every Thing necessary for Pleasure and Profit, never starving or pinching the Inhabitants ; on the contrary, yielding them great Quantities of Grain, as well as other Commodities, fit for Exportation. But do the Inhabitants indulge themselves in Laziness and Inactivity the greatest Part of the Summer, or employ themselves during that Season about Trifles ? By no Means ; this they reckon the principal Time for Labour.

When I mention Labour and Industry, I would have none imagine that he has Reason to expect the divine Blessing, when acting as a meer Tool or Machine, drudging like a Draught-Horse, or following the Customs of his Ancestors, only because they are ancient, when, in the mean Time, a more sure and rational Way is plainly shewn. No, that infinitely wise Being, who has implanted a natural Instinct in Animals destitute of Reason, shews, that, as it is his Pleasure that they should be acted thereby, he expects the rational Part of his Creation should principally, and in the first Place, exercise their internal Faculties, that their Actions may be suitable to the Dignity of their superior Natures ; and so, in some Measure, resemble himself, who doth all Things out of the Depths of his Wisdom.

Many in *Scotland* toil and fatigue themselves as much as the *English* do. Some of us undergo Hardships to which they are Strangers. They are rich, we poor ; they supply us with their Superfluity, we sometimes are pinched by Dearth, and have been starved by Famine. Allow me to enquire into the Reason of this, and Point out a sure Way by which we may enjoy Abundance of all Things
necessary

necessary for comfortable Subsistence, and not only become equal to, but even exceed them in Wealth, Plenty, and worldly Happiness; which, at first View, may seem impracticable, because of the two following Objections, which I shall endeavour to shew to be of no Weight.

First, some may say our Climate is colder than that of *England*, and therefore the Product of our Ground must be less and worse.

I answer. How know you exactly what Degree of Heat is absolutely necessary for the Production of the greatest Quantities of the best Grain? You'll allow there are many Countries, the Climates of which are warmer than that of *Scotland*, and yet not fit for bearing our Grain; besides, there are Southern Counties, within our own Island, which have never yielded such Crops as are seen to grow in others which ly more towards the North, altho' these in the South are fully as well laboured. Does not the Bishoprick of *Durham*, when compared to several Counties in *England*, which enjoy more warm Influences of the Sun, prove the Truth of this? And does not the Shire of *Moray* bear better than many of our Shires which ly more towards the South? Will it be denied that we have, in many Places, as large Turneps, Parsneps, Carrots, Potatoes, and Cabbages, as in any Part of *England*? For my own Part, tho' I have lived ten Years in *South-Britain*, I never have seen Turneps and Cabbages so large there, by far, as in my own Country. All the Use I make of this Objection is this, since our Climate is colder, let us not, for the future, allow our Ground to ly open and exposed to cold Winds, and the Severities of the Weather. Let us ditch, hedge, and drain, and this Objection will vanish.

For

For Encouragement, I assure my Reader, that we can do these at much smaller Expence than the *English*, having Servants and Day-Labourers for less than the Half of the Wages which the greatest Part of them pay; besides, we have more Lime-Stone Quarries, and greater Quantities of Fish-Shells, which may be useful in correcting our cold Soils; as also many more Mosses, to burn the Surface of some of them. The 2d Objection is, our Soil is worse. True, much of our Country is mountainous, and we want *Orpheus's* Harp to cause Mountains and Woods follow us; some of it is so remote from the Sea and Rivers, that it cannot be of such Use to the Proprietor, by far, as if otherwise situated: But where this is not the Case, I am of Opinion, that our Hills and Mountains, if planted with Trees, would not only furnish us in much Timber fit for our own Use, but supply our Neighbours, whereby considerable Returns would be made, to help to enrich the Nation. I have seen, in our *Highlands*, Firs forcing their Way into the Seams of Rocks, where I could observe no Earth to nourish them; a noble Pattern and Example of Industry to the Inhabitants. This shews our Encouragement to plant.

Tho' our Country be mountainous, yet I dare affirm, that tho' *Scotland* is not so spacious as *England*, yet, if we compare our arable and pasture Lands, and our Inhabitants, to those who live in *England*, we have by far more Ground for each of our Countrymen than they, which, if as well improven, would produce as much as those Lands I just now mentioned, which ly in *England*. I doubt not, but if we would fall vigorously to work, in following their Example, we should be capable to maintain, by our own Produce, double the

Number

Number of Inhabitants which at present live in Scotland. I am persuaded the more of the Truth of this, because I am of the Belief, that we have more of the richest Soils than they, which I hope to make appear, the *English* themselves being Judges; and therefore shall offer a few Thoughts upon a rich and barren Soil, and compare a little the Ground in both Countries. I chuse to do this with the greater Pleasure, because, while thus employed, I hope to lay down some of the Principles of Agriculture, of which, I am afraid, the greatest Part of our Land-Labourers are almost, if not altogether, ignorant; and this Ignorance I look upon as one great Reason why the greatest Part of our Country is not improv'd.

Our common Notion is, that sandy, gravelly, moorish, wet Soils, as also stiff Clays, are barren, and that therefore their Rent ought to be very low; many Farms of these Soils pay the Proprietor only Sixpence *per* Acre, which I dare affirm might enrich the Tenant if well cultivated, tho' he paid, for some of the best abovementioned, a Crown, yea, ten Shillings yearly. I add, that such Ground as frequently we undervalue most, may, by Improvement, be made the richest. For it is most easy to make it appear, that wherever you see coarse sower Grass, or Straw which bears poor Grain, with a thick Husk, and these growing to a considerable Height; I say, it is easy to make it appear, that the Ground upon which these grow, may by Culture be forced to produce good Crops, either of Grass or Corn, or both, it being visible that there is a natural Strength in the Soil, tho', in the mean Time, there are Vices, which, if corrected, would render it fit for answering our Wishes. And therefore I believe there are many

many moorland Farms, which might enrich a Man sooner than any Trade or Manufactory, carried on by a Stock equal to that of a Tenant who rents these Lands. All the Soils I mentioned, I allow my Countrymen to call barren at present. Ought they therefore to have no more Culture bestowed on them than formerly? This must be denied. Be not afraid, dear Countrymen, you shall find that some of them, when improv'd, will be among the richest, and by far overbalance all your Labour and Expences. The whole Earth is naturally barren, as to the Production of Corn and many other Vegetables: Do we therefore for ever lay aside the Plough? If we plow for a mean Crop, why not bestow more Labour for a better? This Labour, I tell you, ought principally to be in the pleasant Months, whereby you may be freed from much Drudgery in Winter. I would not have you despair of bringing any Soil to Fertility, it being certain that the Seeds thereof ly in every Soil, there being nothing sterile in the Earth. Stones, Pebles and Sand excepted, all of which, in strict Sense, deserve the same Denomination, differing only in Magnitude.

You complain your Soil is cold. I tell you every Part of the Earth naturally is equally cold: none will affirm it to be a hot Body, as the Sun. These Soils we call warm, either are so by their Situation, which makes them less retentive of moisture, or they are more exposed to the warming Influences of the Sun, or contain more Particles of Sulphure, Nitre or Salts, than other Grounds; or they are sandy, and cannot retain Humidity so long as a Soil that is earthy or viscid. But, pray what do we call a barren Soil? Are Clays barren when manured and cultivated? Not at all.

The

These are the richest, bearing the greatest Quanti-
 ties of the best Wheat, the finest of all Grains. Is
 wet Soil, which hath not too great a Mixture
 of Sand, a barren Soil? No; this when drained
 retains a great Quantity of unctuous Matter and
 Salts, which are great Helps to Vegetation, being
 by the Influences of the Sun easily put in Motion.
 In short, nothing deserves to be called barren, ex-
 cept Sand and Gravel, which, wanting earthy Par-
 ticles, are not fit for retaining the Seeds of Fertility.
 I now proceed to survey both Countries a little,
 that we may be the more capable of forming a
 Judgment of the Richness of their Soils. *York-*
shire is one of the best Counties in *England*; yet
 here you may travel many Miles upon sandy
 and gravelly Ground. About *Tuxford* you find
 such stiff Clay, that in Winter the Road is scarce
 passable. In *Lincoln-Shire*, on that Account, in
 that Season, for several Days, on Horseback, I
 could with Difficulty ride twelve Miles a-day, and
 sometimes have been obliged to hire one to lead my
 Horse, the Roads being so deep, and the Clay so
 stiff. What has the greatest Part of this Shire
 formerly been but a Fen? What Ground more
 unfruitful than *Windsor-Forest*? What more barren
 than *Hunslow* and *Black Heaths*, tho' not far dis-
 tant from the Metropolis? I need not mention
Northumberland, *Cumberland*, *Westmoreland*, and
 numberless Places, which owe their Fertility to the
 laborious Inhabitants. In *Scotland* we have, in
 some Shires, Abundance of Clay, particularly in
 the rich Carries of *Gowry* and *Stirling*, which are
 naturally more fertile than any Grounds of the
 same Wideness and Extent lying together in *Eng-*
land; as also in the Lands of the Counties of
Merse and *Moray*, besides many other Places in
 different

different Counties. I own I am not capable to determine which of the two Countries has most of Sand and Gravel. We have more Ground mixed with Moss than the *English*; this, when burnt produces most plentifully, and, if drained, ditched and fenced, would still be more valuable. I add, that we have much of the richest of Soils lying on the Sides and at the Bottoms of Hills and Mountains, even in the *Lothians*, which Grounds are fed by them; there they want. *England* for the most Part is a plain champaign Country; ours all over is either mountainous, hilly, or hilly rising Grounds. Not only the *English*, but all other Authors own, that the most fertile Soils are found where I have mentioned. All this considered, I think I may justly affirm, that we have by far much more of as good, yea better Ground for maintaining each of the Inhabitants of our Country, than they enjoy for each in theirs; and therefore that this may cast the Balance much in our Favours; and tho' in *England* they have a greater Increase, yet this is owing to the Want of sufficient Culture in *Scotland*, and labouring our Corn-Fields without fallowing, or suffering them to rest, which, if improven, would produce better than theirs. I might have superadded several other Advantages, which we have and they want, such as, that our Country abounds more in Brooks and running Waters. All agree, that the Ground near these is the best. But what I have already said, I hope will be reckoned sufficient; and therefore conclude, by telling my Reader, that I have heard *Englishmen* give it as their Judgment, that we were certainly blessed with the finest of Soils; yet that they did not wonder that we had mean Crops, but that we had any at all, consider-

considering how we managed our Ground. Nothing more certain, than that tenfold of Increase with them is reckoned a good Crop, after all their Labour and Pains, and that many of us reap much, tho' our Fields be open, yea frequently more, after plowing once in Summer, and a second Time before we sow; which is our common Way of fallowing. When our Ground has received sufficient Culture, I have known our Increase far exceed theirs. Take one Instance; this last Season, a Gentleman of my Acquaintance having prepared a Piece of Ground as in *England*, sowed thereon four and a half Bolls Wheat, without drilling, sold the Product, as it stood on the Field, to a Farmer for fifty Guineas. The Narrowness of my own Circumstances have not allowed me to improve much Ground, yet I dare venture to wager with any Man, upon equal Terms, that I shall raise a Boll of good Barley any Year, (the season proving favourable, and no cross Accidents killing out) from a Chopin of Seed.

I now enquire into the Reasons or Causes of the flourishing Circumstances of the *English*, and of the Poverty, Scarcity and Famine which sometimes happens in our Country. I already said, that Manufactory and Trade depend upon Agriculture: In some Countries they do so less than in others. When a Country is populous and confined within such narrow Bounds, as that the Ground thereof is not sufficient to maintain its inhabitants, I don't say they are solely or principally to imploy themselves in cultivating their soils, or that their Trade and Manufactory depend so much thereupon, as if this were not the case; then they are obliged to provide themselves from other Nations: But when a Country is so

spacious and fertile, as that by Cultivation it may not only supply the Inhabitants, but likewise furnish them Subject of Trade, they ought to make it their first, main and chief Study and Employment, to manure and cultivate the same, this being the best and surest Foundation to raise Manufactories, Fisheries and Trade upon, furnishing Employment to the greatest Part of the Nation, and by Returns from other Countries enriching the Inhabitants, which puts them soon in Capacity to rear up what I mentioned; I say it ought to be their main Study and Endeavour to cultivate and improve their Ground to the utmost. The *English*, sensible of this, have made themselves rich and opulent, whereas we, till late Years, spirited by the Advice and Example of the honourable Society for improving in the Knowledge of Agriculture, have totally neglected, or made very slow Advances in improving our Ground, tenaciously adhering to the Customs of our Ancestors, not having considered, that if our Linen Manufactories should flourish for several Years, so as to cast the Balance of Trade with our Neighbours on our Side; yet a few Years Scarcity or Famine may consume the Product or Profits of many Years employed in Manufacture. And it is still to be regretted, that very few, even as yet, especially of our country Farmers of the common Sort, have followed the Example of these Gentlemen I last mentioned, which exposes us to the greatest Dangers.

In *England* they are so sensible of the great Advantages of inclosing, that the greatest Part of their Country appears like a Garden, being fenced by Hedges of Thorns and other Quicks, which is by far preferable to dead Fences or Stone-Walls.

on it m they drain their Marishes and wet Grounds by
 likewise ditches and Ponds. Because our Climate is colder
 ought than theirs, therefore we suffer it to ly open and ex-
 and posed to the Severities of Wind and Weather. Oh
 he same great Wisdom! It may seem superfluous to insist
 on to raise the Advantages they enjoy by this Improve-
 , furnish- ment, and our Losses by the Want thereof; yet,
 f the N considering that the Generality of my Countrymen
 ntries are still wanting to their own Interest, notwith-
 m soon standing of all written on this Subject, I hope to
 ed; I am excused, when telling them, that by Want of
 Endeav enclosures they don't possess their Farms as their
 to the property above one third of the Year, these be-
 ave ma ing exposed to their Neighbour's Cattle about
 re, till eight Months thereof; yea, even in Summer,
 Exam uch of their Product is oft-times destroyed.
 ng in by the Want of Hedges, in many Places, we run
 y negle the Risque of losing our Crops intirely by back-
 roving ward Seasons, and in some Places of not having
 Custome them come to full Maturity and Perfection, espe-
 that tually by Frosts in Harvest. Thereby we scarce
 for save any Benefit by Winter-Foggage. Our Grass
 of Tra both not rise so early in the Spring. We have
 t a not one third of the Grass in Summer we would
 the Pr ave, if we followed their Example. We have
 d in M ttle Hay in Winter; are exposed to so much
 , that loss by shaking Winds, that sometimes our Far-
 ntry Fa er is totally ruined thereby. We want Fuel
 owed for Fire in many Shires, which Hedges would sup-
 entione ly in great Plenty. The Advantages of Wood-
 s. shes are not inconsiderable, as being good for
 great A asture and Corn-fields; these would be of great
 Part Use where Lime-Stone is scarce, there being much
 ng fenc alr in the Ashes of all Trees, Aquaticks excepted.
 which The Ashes of Ash and Thorn, especially the for-
 ne-Wal ter, which chymically prepared are great Caus-
 Th ticks;

ticks; this I know by Experience. By the Way of Wood-Ashes, many thousand Pounds are sent yearly to our Neighbours, for Pot-Ashes, Soap and Glasses.

On the other Hand, the Ground in *England* being kept dry and warm by their Ditches and Inclosures, the Inhabitants reap better Crops than otherways; their grain is larger; their Summer and Winter Corns never fail them, as sometimes both of ours do; their Grass rises early in the Spring, their Cattle feed plentifully thereon in that Season, as well as in the Summer. In many Places they begin to mow in the Beginning of *May*, so that they have great Gain by their Foggage. Having Plenty of Grass and Hay, they have Abundance of Milk, Butter and Cheese. The first helps them to keep such a vast Number of Hogs, that by them some Farmers receive more Money than ours do by the whole Produce of their Farms. Cheese, such as ours, is sold in *Suffolk* for a Halfpenny per Pound; in *Rossmore-Lane* in *London*, you may buy the leanest thereof for a Farthing. Best Cheese in *Warwick-Shire*, *York-Shire*, *Lancashire*, and many of other Counties, is sold for three Halfpence, and *Cheshire* for two Pence per Pound. On a Trade of Ground of the same Bulk that we feed an Ox which we sell for fifty Shillings or three Pounds they graze one for which they receive eight, ten, twenty, yea, sometimes thirty Pounds. They have Plenty of Fruits, whereof not only Cyder and Perry, and other Liquors are made; but these they use for one third of a Diet every Day, in Pasties (especially in Farm-Houses) for about half of the Year. No cheaper Dish in Towns than Apple Dumplings. They have Abundance of fine Wood

for Manufactory, not being forced to smear their Sheep: This affords such a Branch of Trade, that I have heard *English* Merchants, who trade with us, affirm, that, in one Week, they have as much Consumpt for broad Cloaths in *Leeds*, as *Edinburgh* hath in a Year.

Again, Summer-Fallowing their Grounds tends much to render them happy; hereby they kill the Roots of Grass and Weeds, they expose their Ground to the warm Influences of the Sun, by which the superfluous Juices, and all noxious Humours are exhaled, and nothing left but what is fit for Nourishment. By this the Soil is fitter for imbibing Salts and nitrous Particles from the Air; the Pores of the Earth are opened, and a Way made for the tender Fibers to draw their Nourishment. But the best Way to shew the Advantages of this Practice, is to recommend to you that noble Essay for inclosing and fallowing of *Scotland*, writ by a Gentleman of our own Country, who has thereby signalized himself as a true Lover thereof. Upon this I only add, that all Authors ancient and modern, as well as yearly Experience, shew us the great Advantages thereof. Mr. *Tull*, who differs most from the common Way, directs to that of drilling and fallowing the Intervals, by which he thinks it needless to dung our arable Ground, considering how far the attractive Faculty can draw Nourishment. I am of Opinion, that Ground naturally rich, well-prepared for the Seed by Summer-Fallowing, ought to be allowed either no Dung, or a very small Quantity. Or if we give it the usual Number of Loads, that a fourth Part of the Seed ought only to be sown, in the Beginning of *August* if we sow Wheat, or in *March*

or

or the Beginning of *April* if Barley, that they may have Time to branch out; and that this ought to be done, even when we follow the common Way of labouring. In Case of Scarcity of Dung, I would rather spread it upon barren Ground, or harrow it into Grass, with Bushes fixed to the Harrow, after it has lien some Time compounded with Earth. In *Middlesex*, *Surrey*, and some other Places not far from *London*, they never suffer their Ground to ly without a Crop in Summer; but then the Dung-Cart is constantly employed, and they fallow the Intervals lying betwixt their Crops, tho' not with the Plough, yet with the How; they sow and plant Peas, Kidney-Beans, Cabbages, &c. In Place of fallowing, they frequently sow Turneps, noble Provision for Cows and Sheep; the former they feed with them especially when the Ground is covered with Snow, and the latter are turned among them, and eat the Leaves and Part of the Root; after which they hire Men to how up the remaining Part, which afterwards the Sheep eat also; they give them also to their Hogs. Turneps destroy Weeds and Grass; the labouring of the Ground for them enriches it with Salts, which are not exhausted by this Root; and the Dung and Urine of Sheep is a great Advantage.

A Crop of Potatoes is likewise good Husbandry, the Stalk not appearing soon, the Ground lies fallow till that Time, after which few Weeds and little Grass rises; these being well dunged, and the Dung lying so long in the Ground and incorporating therewith, your Soil becomes as rich, if not richer, than by Fallowing. I have seen an extraordinary Increase of Barley after this Root. Again,

Again, that *England* enjoys so much Plenty is owing to this, that they have Summer and Winter Corns to depend upon, so that when one Part of their Crop fails, the other frequently makes amends: Whereas we depend entirely almost upon our Peas, Oats and Barley. They have not only these, but as great a Dependence on their Wheat and Rye, which we know may have a favourable Seed and springing Time, when these other Grains do not enjoy it, being sown in a different Season.

Plenty of Roots and Fruits are likewise very serviceable to them; few Meals, in many Places, there are, where you shall not see Turneps and Carrots presented at Table in their Season, whereby they save both Bread and Flesh. Potatoes are so common, that I frequently bought two Pounds of the largest Size, and four Pounds of small, for a Penny in *London*. May we not be ashamed to reflect, that Boats and Barges have come loaded from *England* and *Ireland*, with this Root, tho' we have as much Ground in common, or what we reckon neither good for Corn nor Pasture, as might maintain all our Country if planted with these, upon Supposition we could live upon Potatoes without any Thing else, and that the Soil fit for them pays either no Rent, or a meer Trifle, when the *English* plant them on Ground for which they pay three Pounds *per Acre*.

To conclude what I design upon this Head. The *English* are such good Husbandmen, as that they keep a due Proportion betwixt their arable and pasture Lands: By this having a sufficient Quantity of Dung, they have good Corn-Crops, and such a Stock of Cattle, as they are capable once in three Years to dung their Grass; also, in some Shires, we have scarce any Product but of Grain

Grain ; in others, where all our Grain might grow we have nothing but Grass.

I now proceed to point out a sure Way to enrich the Nation, and make us abound in the Necessaries of Life.

None will expect that I should treat of Husbandry at large ; there are so many Books writ upon this already, that this would be needless. The Truth is, it appears to me, that we stand more in need of Motives to incite, than Books to direct us ; for what is wanting in what follows, I refer my Reader to *Mortimer*, who writes fullest on Husbandry ; and to a small Treatise upon following Grounds, on Grass-Seeds, &c. published by Mr. *Hope of Rankeiller*, a Gentleman who can never be sufficiently esteemed by *Scotsmen*, and these worthy honourable Noblemen and Gentlemen of the Society for improving in the Knowledge of Agriculture.

Draining, fencing and inclosing of Ground, are not only in themselves an Improvement thereof, but lay a Foundation for other Improvements, such as planting of Fruit-Trees. I therefore hope it will not be thought needless to recommend these. In the first Place, Thorns are the best Fence, to plant them in a Triangle on the Face of your Bank, is better than in one Row ; any Gardener can direct you how to do this ; your Feal ought to be built nine or ten Inches distant from your Ditch. These, on some Grounds, will stand as so many Monuments of Folly ; therefore Care must be taken to suit your Quicks to the Nature of your Soil. Thorns agree with a rich, gravelly, or sandy Soil. Mossy and wet Grounds require Aquaticks, such as Willows, Alders, *French Osiers*, and your Ditch ought to be five or six

Feet

feet wide, at least at the Top, sloping gradually on each Side to the Bottom. I incline that your smallest Inclosures should contain two and half Acres, except your Ground be of a considerable Length, and narrow. To make your Hedges soon sensible, lay a Row of Hogs Dung on the Top of your Bank, the Substance whereof washen into the Earth below will forward it wonderfully. I have already told you, that some of your moorland Farms pay Sixpence *per* Acre, or less, which are worth five, yea, ten Shillings, and upwards. You shall find large Tracts of wet blackish Ground, which would yield great Increase if drained; but this must be done thoroughly. Considering the different Value of your Ground from what it was formerly, you will be sufficiently rewarded for your Pains, tho' you ditch every Quarter of an Acre, if needful. Yet in Draining I would have no Man sink his Stock in a Bog. Let no Ditches stand open, but these upon the Banks whereof your Quicks are to be planted; others, which some call *Hollow-Ditches*, are to be filled with Stones, above which lay Bundles of Twigs of Trees, and afterwards cover them with Earth about eighteen Inches deep; thus you lose no Ground. If your Fields be wet, observe where you have the best Descent; there make your main Ditches, into which draw your smaller ones; dig Spit deep below any Spring, and in making your Drains let them be broad at the Mouth, and narrow them by Degrees. There are two Arguments used against this Improvement. The first by Store-masters, who tell us, that in mountainous Ground their Sheep are so accustomed to climb, that they find it impossible to hinder them from mounting the outer Side of the Bank, and destroying the

Quicks when young. If you have Stones build Walls, or provide yourself in a dead Fence to defend your Quicks. If the last be too chargeable, inclose a small Tract of wet Ground, on which plant Sallow-Twigs, which will soon furnish you with Wood fit for your Design. If what I have said be not sufficient, I add, in my Opinion, it is best to inclose a large Field all at once, and to make the outer Fence a very strong broad Ditch, of at least eight Feet wide, and build one Half of the Feal on the Outside sloping, to support the Earth thrown out of the Ditch, the other Half being built on the Inside sloping; the best Virgin Earth is to be thrown behind, where you are to plant your Thorns. If you find a good Mould below Moss, throw it up for your Plantation, suffering it to ly for some Time to be prepared for your Thorns by the Sun and Air. Thus you have a formidable Ditch, and if you fence it upon the Inside, the Ditch may be after the same Manner, with this Difference, that the Half of the Turf, with the Bottom-Earth, is built and thrown into the Parks. The one sloping from the other will make a Ditch six Feet wide at Surface, above eight Feet broad at Top, besides the Earth left on each Side of your Ditch, of nine or ten Inches Breadth from the Ditch itself to the Feal or Turf. The Turf and Earth thus made up in the outer Side, to widen and secure the outer Fence, and on the inner Side to widen and secure the inner Fence, may, after your Fences are sufficient, in a few Years, be carried clean off, and mixed with Dung, Lime and other Earths, for Manure to your different Inclosures. Betwixt the two Fences you may leave what Space you please for barren Planting, and other Trees. No Beast will attempt to leap this Fence

Fence, when he looks to the Wideness and Deepness betwixt the two, and finds the Disadvantage of his hinder Legs and Parts, so far below his fore Part or Feet. After this you may divide and subdivide with narrow Ditches. If the Ground you are to inclose ly lower than that upon which you are to make your Ditch, and be too wet, dig deeper on that Account, yea, if possible, so deep as that the Bottom thereof may reach deeper than the Surface of the Incloser. To all this I add, that there are many Gentlemen, who have valuable Tracts of Ground, on the Sides or the Bottoms of Mountains, who make Ditches six Feet wide, which their Sheep leap, and destroy their Quicks, and render their Labour almost, if not altogether unprofitable; and yet the Case may be, that their is a Tract of Ground thus inclosed, which might afford Pasture to forty Cows, whereas the whole Mountain besides cannot maintain so many Sheep, or such a Number as bears any Proportion to the Profits which might happen by the black Cattle. This being the Case, and what I have wrote not meeting with their Approbation, I would not have them Penny wise and Pound Fools; I hope they will think it their Interest to banish their Sheep from that Side of the Mountain, for three, yea six Years, where their Hedge grows, till it can defend itself.

The *second* Objection against Inclosing is, that we are not capable because of our Poverty, and the Shortness of our Tacks makes it imprudent so to do. To answer the first Part of the Argument. You are poor; therefore, say I, inclose; this is the Way to become rich. You cannot. I ask, If you were sure to lose one Fourth of your Crop by shaking Winds, would you not imploy yourself and

and Servants one Hour each Day in hard Labour to prevent it ? Well, this is the Labour I would have you to imploy yourselves in. Are not many of you capable to keep one Servant more than you do ? You imagine the Expences much greater than really they are. I asked one who is imployed in ditching and hedging, how much he demanded for inclosing ten square Acres ; he told me 53 Merks, reckoning that he would do it with Ease in one hundred and six Days ; this amounts to little more than five Merks *per* Acre, supposing you to raise the Quicks yourself, or receive them in Completion from the Proprietor. Sure I am, that frequently, even in one Harvest, you lose as much by the Wind as the Expences of inclosing. Where then is your Loss, even supposing a nineteen Years Tack by Inclosing ? I would have you likewise consider that you come least Speed in this Work at first ; for supposing ten Acres inclosed, the next Park you make at the Side of the first, one Fourth of your Labour is saved by your first Ditch and Hedge. How many idle away the greatest Part of Summer, which might be spent in this most profitable Labour ? I would have my Countrymen, not only imploy themselves and Men-Servants this Way, but even oblige their strongest Women to use the Shovel, whereby they will soon gain as much more, than by each Woman spinning Half a Spindle of Yearn a Week, the Value of which Work, for the most Part, does not exceed Half a Merk. This is not such a severe Exercise as cleaning of Byars and Stables. I know many Gentlemen refuse long Leases. I must say, to oppress, yea, not to give Encouragement to the Land Labourer, is a Sign of mean, silly, ungenerous Spirit. To these, under God, the World owes all the Necessaries of Life. These are

our to the Men whose Interest principally we ought to have consult. Do you, the Landlord, look on them as if you of a different Species from yourself, and therefore do deny them a Share of that Happiness which your- selves enjoy by their Labour, Care and Industry? What have you but what you owe to them? Is it not Fleece of their Sheep which warms you? Do not they load your Tables with that Plenty and Variety which support you? What are these delicious, strong, generous Liquors, but the Sweat of their Brows? Is it reasonable to deprive them of the Fruit of their Labours, after they have made your barren Ground fertile, for no other Reason, but because they refuse to work as Slaves to your unbounded Avarice? How know you, if the succeeding Tenant will be as active, and understand the Nature of your Soils as well as he whom you turn out, and, consequently, whether your Rent or your Mail-Duties will be paid you as punctually as formerly? By this Way of arguing, I would have you imagine that I think it reasonable, when a Tenant has improv'd his Farm so, as thereby his Family lives handsomely, and he himself has become rich, he should refuse to pay ten Shillings for that Ground which at first was rented at two Pence per Acre, when, by his Cultivation, it is now worth twenty Shillings yearly. I think it the Tenant's Duty to advance the Proprietor's Interest, as well as for the Proprietor to have a Regard to the Welfare of his Tenant; and therefore I humbly propose, that, for the future, all that our Tenants complain so much of as Burdens, should be removed, as Kain and Carriages, in Place of which I would have them bound to inclose and improve so much Ground as we may compute will cost them the Equivalent at first by so doing. *Secondly,*

by, I would have the Landlord to charge them with as much Entry-Money as he thinks he may be capable to squeeze from them, and that this should be lent back to the Tenant, obliging him to lay it out on Improvements. Again, I think it the Interest of our Landlords, if what I have proposed amount to an inconsiderable Sum, to borrow Money, or, if their Estates are capable of great Improvements, to sell Part thereof, that they may improve what remains. I am perswaded that a fourth Part sold, and the Money thus employed would make the Remainder far more than double the Value of the Whole. I could wish that Gentlemen would not only set their Farms to Men of Substance, such as are frugal and industrious, but also endeavour to fix upon such who have a Genius for Improvements; Men of good natural Parts capable to tell them how much Grain they may reasonably expect by the arable Ground they incline to enter in Tack for, and how many Cows, Sheep, &c. their Pasture-Lands will bear. Before the Tack, none need fear that the Tacksman will exceed in his Calculation. I suppose a three nineteen Years Lease granted, that the Farm for a few Years pays only the former Rent, in order to encourage the Tenant, and enable him to advance briskly in improving; when these are elapsed, it is found that this Farm produces one Third, one Half or perhaps ten Times, more than the Tenant's Calculation when Tacksman. Why may not a Provision be made, that, this being the Case, so much additional Rent shall be paid for the remaining Years, as may be consistent with the Interest both of Proprietor and Tenant. By this or the like Method, I am of Opinion, that our landed Men might enrich themselves much more than by these small

small trifling Sums they receive for a nineteen Years Tack.

In the second Place, I recommend Fallowing to my Countrymen. I think it needless to waste much Paper upon this Subject, after what is already wrote in the Treatise to which I formerly referred my Reader. Take only this general Direction. Plow your Soils seldom, or often, as their different Natures require. Some you can scarcely plow too often, being naturally so stiff and glutinous. *Pliny* mentions plowing eleven times. This may be thought impracticable and ridiculous, considering we in this Country reckon twice, or at most thrice, sufficient Preparation for a Crop; yet, if we consider that every Time we plow our Labour becomes more easy, this will appear not so ridiculous as at first View; for, after the third Time, your Horses will walk at Ease, and as fast almost with the Plough, as without it; besides, it is more profitable to be thus employed, than in many trifling Exercises we employ ourselves in during the Summer. As long as your Soil is glutinous, you ought to plow it till it turns quite mellow, and crumble to Dust almost. Weeds and Grass-Roots are a Direction to us likewise; we ought to plow as long as these appear. If the Soil be light or sandy, my Author tells us, *sat e-*
it suspendere sulco, it is sufficient to let it ly idle all Summer with one Furrow.

Again, I look upon planting of Potatoes as an excellent Improvement, and a noble Preparative for Grain. In many Places where there is wet sicken ground, or black Earth inclining to Moss, covered with long coarse green Grass, you may have such Increase by Potatoes, as will not only be equivalent to, but even exceed the Value of any

any other Crop which can be reaped from such Ground. I know a Gentleman who upon such Soil planted Potatoes, valuing the Ground, Dung and Labour at ten Shillings for that Year, and received fifteen Pounds *Sterling* for his Produce. This Root, planted upon such a Soil as I mentioned, will yield no despicable Increase, even without Dung, yet you have a much greater Number and bigger Roots, where you lay Dung below them; only observe, that Horses Dung, besides a Mixture of Straw, is to be spread on wet Ground about an Inch in Thickness: But where your Soil is dry, or Sand and Gravel, no Matter tho' there be a Mixture of Cows Dung; the Surface ought to be covered with this about two or three Inches deep, besides the Straw: If you over-dung your wet Ground, your Potatoes will run too much to Straw or Haum. On two Plats of Ground of the same Quality, and wet, lying together, of the same Bulk, I planted Potatoes; on one of them I laid two Horse Loads of Dung, on the other four; when I dug them up, I found that on which I spread the four Loads produce the greatest Number by far, but many of them were no bigger than Nuts; the other yielded me as large Roots as ever I saw, two or three of them being a sufficient Meal for one Man. This Root answers in moorish Ground; but, for my own Part, I could never raise them large on stiff Clays, yet I am told that frequent Culture before planting will make them thrive even on these Soils.

Again, to sow Turneps, Parsneps, Carrots, not only for private Use and the Market, but also for Hogs, is a Piece of excellent Husbandry. Swine are such profitable Creatures to the *English* Farmer, that I wonder we breed so few. Take the following

following Directions as to their Food. For the
 young Shoats sow Clover-Seed; upon this Grass
 they will thrive well, especially the black Breed.
 Some tell me, they can feed a more valuable Crea-
 ture upon this. I shall not dispute the Point, only
 would have such to consider, that much of their
 Food is what other Beasts cannot feed upon, such
 as Dish-Washings. Before you allow them Clo-
 ver, be sure to ring them, otherways they'll destroy
 much more than what is needful: Tar their Snouts,
 to hinder them from swelling; you must give them
 their Food at Night. In *England* they throw
 Whey, skimm'd Milk and Butter-Milk into a
 Hog-head, and give them this, conveying it into
 their Troughs by a Spout through their Sty. Wash-
 ings of Tubs and Dishes, Grounds of Drink,
 Urines and all Kinds of Offals are fit for them;
 the Roots I mentioned will help to keep great
 Numbers of them. They fatten very soon upon
 the Dreg of Aquavita, as also Pease and Beans.
 A Farmer commonly at first buys a Pig for eve-
 ry Cow, and afterwards keeps one Breeder for eight
 or nine. A great deal of Money may be made
 of Swine; therefore, when they have taken the
 farrow, throw cold Water on their hinder Parts;
 then drive them well about, and keep them shut
 up a Day and a Night without Meat, and suffer
 the Hog to come near them. To prevent the Dis-
 temper called the *Garget*, give to each Hog a-
 long their Wheat as much crude powdered An-
 timony as will ly on a Shilling. This Disease
 shews itself by a hard Swelling and Inflammation
 about their Dugs, when they begin to suckle, and
 is like in others under their Chops. The first
 is cured by fresh Butter mixed with chopped Rue,
 piled together and strained thro' a coarse Cloath,

and anointing the Part affected three or four Times; the last by putting a Bit of, Hellebore Root in the grisselly Part of the Ear, which causes a Swelling, and then a Suppuration throwing out Matter which carries off the Corruption of the Blood.

To have great Plenty of Milk, Butter and Cheese as also to breed Cattle of a large Size, dung your Grass about the Beginning of Winter, and harrow it in with a Bush, or Harrow stuck full of Bushes. A Compost is better than unmixed Dung. Virgine Earth, the Bottom of a Hay-Stack, Mud out of the Bottom of Ditches, are best for a Compost. Be sure not to overstock your Ground. Allow your Cows to feed among Grass so high as to cover their Hoofs. The best grazing Grounds ought to be stocked with large Cattle, the more barren with Sheep, the rocky with Goats. To have fine Veal, allow your Calves the whole of their Mothers Milk (if they can drink so much) mixed with Eggs; some take one Egg, some two, and others three. You are not to Milk your Ewes; this is a Practice unknown in the South of England. To prevent Rotteness in them, be sure their Pasture be dry. To fatten your rotten Sheep, feed with Horse-Beans in Troughs, or let them eat the out of the Pods in Pens under Cover, with Hay Racks and Water constantly by them. This Food sometimes cures them, if, at the same Time you are feeding them therewith, you open the Wether's Skin near the Pizzle, and that of the Ewe near her Udder, with a Penknife, to let out the Water between the Flesh and Skin. To prevent Diseases, unfold not your Sheep in Summer, till after Sun-rising, or about seven or eight o' Clock. Before this, drive them briskly about the Fold,

little afterwards do the same on the Ground where they graze. It will likewise keep them sound, if you compound an Ounce of common Salt with an Ounce and a Half of Gun-Powder and a Chopin of Spring-Water, whereof give four Spoonfulls to a Sheep, at a Time, once a Fortnight. A Gentleman informs me, that to sow Parsley in different Parts of their Pasture prevents Diseases. This thrives well in any Soil well-cultivated, and Horses and Cows will feed upon the Hay thereof, preferring it to any other.

To cure Cows hosed with Clover-Grass, give them a Handful of Salt in Chamber-Lee in a Horn, or two or three Ounces of Gun-Powder in a Chopin of Milk.

To cure the Garget, take Spirit of Lime, and mix it with Marsh-mallows; then anoint and rub all the Bag, repeating it, if Occasion requires.

To know the Age of a Sheep. At two Years old they have two broad middle Teeth; at three they have two more on each Side of the former; at four they have two more; and at five they have eight.

To know the Age of a Cow. At two Years old they have two broad Teeth in the middle before; at three they have two more on each Side of the former; at four they have two more; at five they are all broad. A second Way is, to observe a Tip at the End of each Horn at two Years old, which continues till the fourth Year, when a Shoor at the Bottom of the Horn succeeds, and another next to that the fifth Year, and then they disappear, by being one at a Time dispersed, or turned into a Wrinkle; as the Cow ages these increase every Year one, *that is to say*, At six Years old

old she has one on each Horn, at seven two, at eight three, and so on.

To know the Age of a Horse. At three Years old he has two broad Teeth in the Middle above and below; at four he has four broad Teeth above and below; at five he has six, at six he is full-mouthed, and his Corner-Teeth hollow; at seven the Hollow is almost gone; afterwards you can only guess.

I have done with Cattle and Pastures after two Remarks. *First*, there being Danger of the Crop being spoiled which grows on Lands on the Side of Rivers, which sometimes overflow them, it is safest to feed Cattle upon them. *Secondly*, Observe, in order to a plentiful Crop of Grass, to sow these Grass-Seeds upon Ground which naturally bears the Grasses you design to raise by Seed. Thus, where you see much natural Clover, you shall be sure of a great Crop after sowing Clover Seed.

Before I treat of arable Ground, I hope it will not be improper to lay down some of the Principles of Agriculture, which, if rightly understood I look upon as a sure Foundation for forcing the Earth to produce plentiful Crops, or, to use my Author's bold Expression, *imperare arvos*, to command our arable Ground.

As in the human Body there must be a due Mixture of what Physicians call *callidum immaturum* & *humidum primogenitum*, natural Heat and Moisture, with the other elementary Particles, in order to Health, Strength and Growth, so (if we may compare our own Constitution with that of the Earth our Mother) an equal Temperament in the Soil is necessary to Growth and Fertility. If I should treat of the Influences of the Air, which

o, assist, and are absolutely necessary to Vegetation,
 many would look upon my Notions as useless airy
 Speculations. All I think necessary to say a-
 bout this Element, is, that from it the Earth im-
 bibes nitrous Particles, which are owned by all to
 be of a fructifying Nature; as we fallow for other
 Reasons, so for this, that the Earth may the more
 easily receive, retain and incorporate with these.
 Every Body knows, that the Seat of a Dunghill is
 more fertile than any other Part of a Ridge, tho'
 compared a little below the Surface of the Earth;
 these Particles, as also what was unctuous in the
 Dung, having sunk into the Ground. Moisture is
 absolutely necessary to Production and Vegetation;
 yet, if a Soil be too wet, if it wants a due Mix-
 ture of Salts and unctuous Matter in the Surface,
 the Juices are sterile, the Humors superfluous, and
 therefore noxious, the Product of such Ground
 must be mean till it be drained; when these stag-
 nate, they chill or rot the Seed; the attractive, re-
 tentive and expulsive Faculties are weakened or de-
 stroyed thereby. When Drought happens, the
 Ground is covered with a Crust where the Water
 stood, which hinders the Heat of the Sun to pe-
 netrate and impart its vivifying vegetative Influ-
 ences, and is an Obstruction to the Blade in forcing
 its Way thro' the Surface. Different Degrees of
 Heat are necessary for various Productions. Tho'
 our Climate answers several Sorts of Grains,
 Herbs and Roots, yet some of our Soils, to bring
 these to full Maturity and Perfection, need addi-
 tional Heat, by the Superinduction and Incorpora-
 tion of such Things, the principal or essential Parts
 whereof consist of Nitre, Salts and Sulphur; and
 these are to be carried to our Soils in such Quan-
 tities as shall be necessary, observing the Differ-
 ence

rence of their Heat and Cold, and also considering their Situation, whether high or low, and the Nature of our Climate. If this were observed, it would not only prevent the Lateness and Badness of our Crops in many Places, but might likewise introduce several Exoticks into our Country. To demonstrate the Truth of this, I tried *Persian* Wheat last Year, having got a few Grains thereof, which grew in a Nobleman's Garden in *Fyfe*; these I planted in the open Fields on the coldest Soil I had; having first compounded Lime which had not been exposed to the Weather, unslacked, with Horses Dung, which I kept in an Apartment of my House; this Composition I mixed with the Earth on which I planted, and thereby brought this Wheat to full Maturity, tho' what Seed I received was far from Ripeness when cut, which I could easily perceive by its wrinkly Body, and the Difference betwixt what I sowed and that which I reaped, the one being flat almost, and the other round. This Seed raises five Heads on one Stalk, one in the Middle as long as the Ears of our Wheat, and two on each Side about an Inch in Length.

Again, Earth is the fruitful Mother of all Vegetables, in which there is Sand, Water, unctuous, viscid, glutinous Matter, Salts, Sulphur, and Earth properly so called.

There is no intrinsic fructifying Quality in any of the above, simply and abstractly considered; we dont therefore expect a plentiful Crop after an excessive Drought, even in a hot Season; nor do I imagine that (Ground lying fallow) the Heat of the Sun in the preceeding Season leaves any fructifying Quality for the following Season, but serves only for exhaling superfluous noxious Juices, and

and destroying Weeds. Tho' the Seeds of Fertility are in every Soil, yet to extract these by Grain, &c. so as to have a good Crop, there ought to be something of an equal Mixture of the above Simples; and yet I am apt to believe, that what there is Spirit in, (I mean, the Grain) draws the principal, most valuable Part of its Substance from the Salts and nitrous Particles, and the Straw from the earthy, viscid and unctuous.

Having laid down these fundamental Principles, I proceed to a few Observations and Reflections, the greatest Part, if not the whole, of which, I imagine may be inferred from the Premisses.

First, It seems plain, that one Soil may be corrected and meliorated by another, when the Qualities differ. Some Soils are too viscid or glutinous, this hinders the Roots and Fibers to penetrate, and draw proper Nourishment to them. Stiff Clays may therefore be much improv'd by Sand. Some Authors recommend Sea-Sand as a mighty Improvement of every Soil. I am inform'd by a worthy honourable Gentleman of undoubted Credit, that in the Shire of *Moray* there is a Sand of such a fertilizing Nature, that it makes even sandy and gravelly Soils bear good Crops. Tho' I wish more Sand were used for Clays than we do, knowing that we have considerable Tracts of Ground, which might bear Plenty of good Wheat, that produce almost nothing, and believing that a great deal of Labour, in often plowing our Summer Fallows, might be saved thereby; yet, if I should affirm that Sand hath any Thing in it fit for the Growth of Vegetables, I would expect to be reckoned as mad as *Ulysses* was thought to be when plowing the Shore. I really believe, that if Sea-Sand be laid upon a sandy or gravelly Soil,

tho'

tho' it may produce well at first, yet, when the Salt is extracted, the Ground will be more barren than before; for my own Part, I would rather chuse any Soil for such Land than this, there being at least something unctuous in the meanest Soil, whereas nothing is more barren than Sand: Therefore I think I may venture to affirm, that this Sand in *Moray* has Sulphur, or something else, incorporated with it, which is of a fructifying Nature. When Salt is necessary, as when the Soil has bred too many Worms, or the Seed runs too much to Straw, then I look upon it as better Husbandry to provide from two to four Bushels of Salt for each Acre; yet if Urine be carefully preserved and incorporated with Dung, or a Compost, I believe you shall have little Occasion for Salt; yet I own Sea-Sand to be a great Improvement of Clays, which is owing, not only to the Sand itself which opens the Pores, and to the Salt, but likewise to the Shells and these Creatures which are mixed therewith, great Numbers of which are imperceptible to the naked Eye.

Before we spread one Soil upon another, the Soil we design for a Corrector ought to be well prepared by a Plough, or rather a Spade, to hinder the Growth of Weeds and Grass, and also to enrich it with Salts. If it be virgin Earth, or the Bottom of Ponds or Ditches, it is by far the best. None will deny Superinductions rightly chosen to be an Improvement of the Ground on which they are spread; but the Objection seems to have Strength, if we suppose a rich Soil robbed to fertilize a barren, or one less fertile; as if we take a black loamy Surface to lay on Gravel, without making the former a Recompence. To remove this, or at least lessen the Strength thereof, if the

Loain

can be deep, the Advantage is, I think, undea-
 ble: But supposing a barren Sand or Gravel
 immediately below the Reach of the Plough, I own
 am not for Swarding, I advise to try in different
 parts, and where the Loam is deepest, there I
 should have you dig a Pit which you may after-
 wards fill up with Stones or Gravel, covering them
 the Top with Loam about eighteen Inches deep;
 when you ditch this fertile Ground, carry off
 much of what you throw up, as may answer
 your Design, and take the Scourings thereof every
 year. Again, it is frequently found, that there
 is Earth fit for this Purpose within or about the
 barren Ground itself, or below its Surface; allow
 therefore to go in Quest thereof. Supposing
 myself traversing a barren Moor; if in this I find
 any, below the Surface I have what answers my
 design; if Moss a Yard deep, I doom it to be
 rent; if I find a large Tract of Sand of a white,
 black, or reddish Colour, tho' I have small Hopes
 of a good Bottom, yet I think it fit to make a
 trial of the Soil, by digging at the Distance of about
 twenty Paces, where I find Clay, and I carry off
 what I judge needful: But if, after all, I find myself
 searching after the Philosopher's Stone, still I
 proceed; for having travelled the greatest Part of
 Britain, I have observed always in moorish Ground,
 bogs, Marishes, or Intervals lower than the rest
 of the Moor, which are frequently wet, sometimes
 the Water stagnates upon them; and whereas the
 nearest Part of the Moor is covered with Heath, or
 grass so short that it is only fit for Rabbits, in
 the Intervals the Heath seldom grows, or, if it does,
 is at a considerable Distance, in place of which
 you find Rushes, or coarse Grass, which grows to
 a greater Height than on the rest of the Moor. By

the Difference of the Product, I am sure the Soils differ in Quality; the lower Grounds I take for Superinduction; for tho' they lodge bad Juices, yet these being exhaled, these Grounds are by far the richest, the Rains having washed down from the higher Grounds the Salts, finest Earth and unctuous Matter, these not being so ponderous as the Sand.

Again, to fertilize any Soil, you may burn the Surface thereof. I own, that in case it happen to have a thin Crust of Moss, and Clay below, I do not approve of Denshiring, because, in the Space of three Years, the Ashes are buried, and the Soil becomes barren. I would rather, either burn the Clay below, with Peats, or other Combustible, or make a Compost of the Clay, and spread it on this Ground, yet, in general, burning the Surface helps Vegetation, tho' one Soil needs it more than another. *Virgil* desires you to burn barren Lands; he says, that this cures all the Diseases the such Grounds are subject to. *Bersman* tells us, that these proceed from *Leanness for Want of Aliment, Sliminess for Want of Nourishment, Closeness, which shuts up the Seed, or Laxity, which gives too easy Admission to Heat and Cold.* *Virgil* says, that burning removes the Leanness, consumes the Sliminess, opens the Closeness, and shuts up the Laxity. *Sive in* &c. He suggests to us, by these Verses, that the Land itself ought to be burned, [*agros,*] by the Benefit which he conjectures may be reaped from the Practice. He would have it burnt with light Stubble, or rather any Kind of Rubbish, Heat Furz, Rushes, Fern, Bent, Weeds; and thus would ought to render *stipula*, to make him speak like a Farmer, and a Man of Sense: For how can light Stubble burn the Land, I mean, so much as would

of any considerable Service? The Reason I conceive, why he adds the Adjective [*levis*] light, is because it is so when compared to the Ground on which it grows, or rather, when it is fit for burning, it has stood so long as that it has lost a great deal of its Sap, and therefore is light; or we may imagine them to have had our Practice of burning Turfs after dried. The Reason I am so bold with my Author is, because I find *stipula* to signify the whole Stalk of Grass, *Geo. lib. I. Nocte leves stipulae, nocte arida prata tondentur.* The Benefit of burning Ground appears from this, that having gathered Grass-Roots together (after harrowing) in Heaps, and burnt them, we reap the best Crop where the Heap did ly. By this Practice we kill Weeds and Roots of Grass. It is fit for mossy Ground, stiff Clay, and Soils which have been boggy, or too wet, and have contracted what some call Canker, or sour Juices. In Clays your Soil is freed from glutinous Matter, and becomes more mellow, opens its Pores, and what is superfluous evaporates. Care must be taken, if possible, not to over-burn the Surface, by reducing it to white Ashes. In order to burn it, take the following Direction. Turn it up with a Breast-Plough, or Slaughter-Spade, in Turfs, which may be thicker when the Earth is full of Strings; dry the Turfs, by setting two of them on Edge against each other, winding thro' the Fields, that the Wind and Sun may dry both Sides; when dry, lay two Wheel-Barrowfuls to a Heap; let the Ashes ly till a little addened with Rain, after which spread them; the Ground beneath the Heap must be pared, lest too fertile: Plow as shallow as possible; sow half Seed. This Improvement lasts for two or three Crops, and is best made with a slow Fire. If you have

have unslacked Lime, add to each Heap one third or one fourth of the Bulk thereof, and cover it with the Ashes till Rain comes. From the above Principles we may likewise infer the Absurdity of limiting ourselves to such Quantities of Dung as are commonly prescribed us by Authors. Ought we to spread the same Quantity on an Acre of black Loam, that is laid on Sand or Gravel? Observe the following Rules. If your Soil be rich, and well fallowed, in case you be scarce of Dung, let this receive none; rather lay it on your Grass, or barren Fields which you design for Corn: But if you have such Plenty of Dung and Manure, that you can spare Part for your rich Soils, sow thinner than if they wanted it. Supposing forty Loads of Dung of Horses and Cows bestowed on an Acre of a rich Soil well-prepared, sowing it early, would only give it one Firlot of Barley for Seed. I advise, that much greater Quantities of Dung be used than what commonly we do, owning, at the same Time, that too much may be a Detriment. If we take only our own Dunghills, we can scarce over-dung for Barley and Pease; I reckon Street Dung as rich as these. I am informed, that many carry a hundred Cart-Loads thereof from *Edinburgh* for an Acre, the Price being a Merk per Load; this amounts to one hundred Merks. The Quantity and Price being so great, this may seem incredible; but let it be considered, they don't dung their Ground every Year, and that the Quantity is diminished by lying a long Time at the End of the Field, and drying. Of common Dung I would not incline to lay less than forty Loads on an Acre for really our Increase depends much upon the Quantity thereof; one Ridge well dressed will bear as much as three when otherways. *Virgil* uses a

very

very strong Expression to perswade us not to be sparing, if the Land be naturally dry and barren; *Arida tantum ne saturare fimo pingui pigeat sola. Saturare*, to give it a hearty Fill. *Pingui*, fat, is very judiciously prefixed to *fimo*, Dung, when the Ground is dry. This affords me a third Rule, *viz.* As we ought to consider the Nature of our Soils, so we must provide Dungs for them, of such Qualities as will assist them most. I know by Experience, that human Ordure, fermented with Urine and black loamy Earth, will produce an extraordinary Crop on Sand or Gravel: Cows Dung is very profitable for these Soils, when kept distinct from that of Horses; yet you must consider your Situation and Climate; also Peat-Ashes are good for these Soils. Coal-Ashes are excellent for Clays, and these of Beans and Ferns, especially when burnt green, and in full Sap, as also these of Ash and Thorn; the former are a strong Caustick. Aquatics have the least of Salt in their sappy Bodies, as also Whins. To know the Strength of Wood-Ashes, taste them; if strong and good, they taste near as salt as Gun-powder. The stronger the fitter for cold Ground. Ashes sown on Ground produce Honeysuckle. Right Coal-Ashes abound more in Sulphur than the Wood-Ashes, whose chief Benefit lies in the saline Part. Lime-Ashes are hot; Straw-Ashes, except from Beans, and Smiths-Ashes, are worst of any. Soot is one of the best Forcers of Vegetables, and is excellent either for Grain or Grass; ten Bolls thereof is little enough to an Acre, unless the Ground be very rich, and Summer-fallowed. It is sown in *November, December, January, or February*, on Wheat, when five or six Inches high, and may be harrowed in with Barley, tho' in the South of *England*, being a hot-

a hotter Climate, they first harrow in their Seed, and afterwards their Soot, lest it burn the Root. Pidgeons Dung is preferable to all others; it is a most agreeable Dressing for all Sorts of Grain and Land; you may take about the same Quantity of this as of Soot; the Dung of our Fowls is not half so rich: That of Horses is hot; Cows Dung is a saltish but poor Excrement. Sheeps Dung is better than that of Cows and Horses, being of a more hot, unctuous, saline Nature. Their Stale is better, because they live upon less Water. Hogs Dung is the fattest, richest and most fertilizing of all the Quadrupedes. It is hottest, and fullest of Nitire, when they are fed with Beans to fatten them. Urines, if discreetly used, are the most fertile Assistants of Grass and Corn.

Some throw Moss upon stiff Clays. An ingenious Gentleman informs me, that he tried this without Success. Others tell me, that thereby they have good Crops. It is agreeable to my weak Judgment, to think that considerable Profits may be made by Moss, if rightly prepared, by drying it, or frequently turning it over, or fallowing it into the Soil on which it is laid; for the Clay being stiff, the Pores thereof may be opened, and a Way made for the tender Fibres to extract Nourishment. On the other Hand, I see no Reason for throwing one cold Soil upon another of the same Nature, without preparing the former; by so doing we may reap a Crop of Straw, but I am perswaded that thus we run a Risque of losing our Crop of Grain, or of a late one; yea, even if the Summer proves hot, we must expect Grain with a thick Husk. The best Way of preparing and using Moss for Grain, is to mix it with hot Dungs, such as that of Pidgeons and Rabbits, with the Addition of

of Lime, turning this Compost thrice over in Summer. It will be likewise useful in burning stiff Clays: So much I am of this Opinion, that I think such as have Store of Peats, Ferns, Whins, Broom, Sticks, Rushes, and have Clay-Soils, need seldom complain of mean Crops.

To correct, meliorate and improve our Ground to the greatest Advantage, we must not take a superficial View of our Soils, without considering their Natures and Qualities very narrowly. Some tell us, that their Farm, by the Bulk, is of such a particular Soil; whereas it may be questioned if there be an Acre in *Britain* of the same Soil, without any Variation: It is therefore necessary, in order to an extraordinary Crop, not only to go from Ridge to Ridge, observing the different Soils, but likewise narrowly to mark the same in different Parts of the same Ridge, and to apply Earth, Composts, or Dung, according to the different Qualities thereof.

The Farmer carefully observing what I have already wrote, and following my Directions, will certainly thrive, except Providence remarkably cross him. But some will say, To provide such Quantities of Dung for Grass and Corn is impracticable; when we have scraped altogether, we can scarcely dung our Pease, or Wheat and Barley. To remove this Difficulty, and render my Countrymen happy, I tell them, *first*, that they lose more than the Half of the Benefit of their Dung, if they suffer it to be washed by Rains, which carry off the Urines, Salts and Sulphur. If you would make a Dung-House, or a wooden Roof supported by Pillars, or take one of your Cottars Houses for your Dung, these would pay their Rent with great Interest. This is strange Doctrine to many *Scotsmen*,
yet

yet in *England*, particularly *Hertford-Shire*, this or the like is practised; some keeping it in Out-houses, or under their Granaries. Next, I tell my Countrymen, that preserving different Kinds thereof, in separate Apartments, may in some Cases be very beneficial; or you may allow hot Dung to ferment, being thrown into one Heap. If you take short Horse-Dung, and mix it with Ashes or Soot, or both, and throw Pits-Pots daily upon these, six Cart-Loads, sown with the Hand, will serve a measured Acre. That you may lose nothing, build a House of Office, and frequently throw burnt Clay into it, or that which has stood at least three Quarters of a Year in a Fold-Dyke, or has been frequently turned with the Spade. The Increase I have had by this Practice is almost incredible. This would balance the Loss of your Kain-Fowls, and much of that you suffer by your Carriages. Such who live near Streets and Highways, ought daily to sweep up the Dung which lies on them, and thus they may increase it to a great Quantity.

But what I would have my Countrymen depend most upon is the Summer, during which I advise them to make it one of their main Concerns to add to their Dunghills. Then is the proper Season to reward our Horses and Oxen for their Labour, and our Cows for their Milk, by providing them in a soft Bed, as well as in other Seasons. Cut therefore Plenty of Rushes, Ferns, Heath, &c. or be diligent in weeding your Corns, as in *England*. Thus your Fields will be less pestered with Weeds, and throwing these your grand Enemies into Styes, Stables or Byars, to be troden down by your Cattle, you will afterwards see them become your great Friends. Nettles, Hemlocks, and all such useless Weeds,

Weeds may be converted into Treasure. In fine; whatever has Salt, is unctuous, or nitrous, may at length help to fill the Corn-Yeard; and enrich the Granary. That all Objections may cease, I tell you, that it is in your Power to provide sufficient Manure, by making earthen Dykes, or digging Clay and burning it for Mixture with your Dungs. In Place of this, you may likewise plow down any Vegetables when in full Sap, such as Pease. I know a Gentleman who cuts the first Crop of his Clover, and plows in the second, after which he has an excellent Increase of Wheat.

But because I look upon Composts as best for Grass, and excellent for causing your Dung spread far, I offer the following Observations relative to them, having first informed my Reader, that I am sensible some condemn their Use for Corn-Fields; because, after Trial, they find thereby their Corns overgrown with Weeds; but the Reason of this is Want of sufficient Preparation of the Earth before compounding thereof. The best Earth for a Compost is the Scourings of Ditches; virgin Earth, or sucken Ground; all of these are rather to be chosen of black loamy Earth, than any other Soil, or of Soils of Qualities differing from that upon which they are to be spread. Having chosen Ground for my Purpose, I build it as if I designed a Fold-Dyke. What led me to this was, I considered that thus I would kill all the Weeds and Grass, and that the Earth in this Dyke was warmed more by the Sun, and dried better, than Ground either of a plain horizontal or sloping Surface, and therefore the superfluous noxious Juices would certainly be exhaled.

I look on *Virgil's* Conjecture; when advising to burn Land, in these Words, *Sive illis omne per ignem*

sem excoquitur vitium, atque exudat inutilis humor;
 I say, I looked on this as most rational. The
 Exhalation of the cold, superfluous, noxious Moi-
 sture, and the killing of Grass-Roots and Weeds, I
 conceive to be the sole Advantage we have by fal-
 lowing from the Influence of the Sun; whether
 my Reasoning be just or not, it is certain, that
 where a Fold-Dyke lies we reap the best Crop,
 and the Increase would be greater if we brake the
 Turfs small. These Turfs I dig in the Spring, or
 the Beginning of the Summer, and they stand till
 Winter thereafter in a Dyke. I think it advis-
 able to make a small Pit near your Byars, &c.
 into which the Piss of Cows and Horses may be
 conveyed by a gentle Descent, they being case-
 wayed; throw into this Chamber-Lee, Sope-Lees,
 and the like. All Things at Hand, I crumble
 down first my Turfs, allowing the greatest Quanti-
 ty of Earth to the lowest *Stratum*: Then I take
 Lime and Dung by Turns, after the common
 Way, which I never leave exposed to the Rain
 and Air, leaving always Earth uppermost. When
 I have as much Dung as is sufficient for a second
Stratum, to the Urine, &c. I add Nitre pulve-
 rized, or beat small, and throw this upon the
 Earth I left uppermost, then I proceed, as for-
 merly, till my Compost be finished; the least
 Quantity of Nitre is six Pounds to an Acre, when
 the Soil is naturally rich. I use least Earth for
 Barley, and incline that Ground thus prepared
 should be sown as soon as possible, having suffi-
 cient Moisture, that the Corn may branch in
 Time, otherwise the after Growth will be too late.
 For every Cart-Load of Earth, I allow two of
 Dung, and so much Lime as covers the Earth, so
 that none of it shall be seen; I allow more of

less

less Dung as it is short or long. If Dung ly under Covert, you may impregnate it with Urine before you mix it with the Lime and Earth. For dry warm Ground I take Cows Dung, and that of Horses for a cold Soil. On new barren Land, or a better Soil run out with constant Bearing, I spread forty Loads *per* Acre, diminishing the Quantity as the Soil is rich. In dunging or manuring spread the greatest Quantity on the Water-Furrows. A very rich Soil, well-fallowed, may be planted early, with forty Loads of this Compost, at the Distance of six Inches. In the Year 1740. I planted a Handful of Barley upon new black Loam with this Compost; it branched so as to cover the Surface in three Weeks, tho' set at this Distance, and I reaped from it seven large Sheaves, but they being stolen I don't know my Increase. In another Place, where the Soil differed little from the Sea-Shore, I had three Firlots after Half a Peck; and because I sowed too thick, in the Year 1741. I sowed on this Ground, without any Dung or Manure, a Lippy of Oats, from which I had a Boll wanting a Chopin. The above Compost I have applied to different Soils, always with Success. What I leave of my Dykes, I throw on the Ground from whence it was dug, breaking it small with a Spade or How. After the Dykes are built, I plow the Bottom, or what I left for a Surface. I reckon this the best Way of fallowing Gravel or Sand, (*exiguus ne deserat humor arenam*) there being less Danger thereby of losing, by washing Rains, their small Quantity of unctuous Matter, and the Seeds of Fertility.

I now add a few Experiments I have made lately. In the Year 1740. having sowed seven Pecks of gray Pease, I reaped only Half a Peck,
my

my Soil being cold, and the Harvest frosty. Last Year, on the Ridge next to that on which I sowed them, I drilled Hastings, Forty-Days Pease and gray Pease, about the Distance of three Feet betwixt the Rows, and four Inches betwixt each Pea. I sowed of Forty-Days Pease Half a Pound, of Hastings one Pound, of gray Pease a Peck wanting a Chopin. The Product served my Pot, from the Middle of *August*, till *Martinmas*, for Broth, boiling twice a Week at least, besides what we used with Butter, and out of the Hull, which we did as frequently till the latter End of *September*; my Family consisted then of seven. I caused a Man shake Dung into the Furrows out of an Apron, and dropt my Pease on the Top thereof. A Gentleman in my Neighbourhood sowed one Peck of Hastings, very thin, in the Fields, on warmer Ground, after which he had, in his Opinion, three Bolls; but could not tell the exact Quantity having used them as I did. This makes me imagine, that white Pease might ripen in many Places of the Country, where we have no Pease at all. I observed the same Method with a Peck of Barley, with this Difference, that in some Places my Rows were only about a Foot distant, which succeeded according to my Wishes; but when they were wider, considering the Loss of Ground, I shall always sow thicker. I employed a Man to sow the Half of this Peck; my Product did not exceed the Seed, the Ground being only once plowed, and he not taking Time to break the Clods. I had eighteen Pecks by what I sowed myself upon an eight Part of an Acre, and would have had more, if six Cows had not lodged a whole Night among my Barley after thorn.

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I find digging forces Ground to produce better than plowing, especially if the Spade reach deep. The Delver must take Care to bury the Weeds and Grass, and break the Ground well with his Spade.

Trenching is a noble Improvement, if the Bottom is as good naturally as the Surface. I have known some in *England* trench several Acres once in five Years, paying each Man sixteen Pence per Day ; this they reckoned cost about sixteen Pounds *Scots* per Acre. Others cause eight or ten Men follow the Plough, turning up the Bottom. This I think might do better for Clay Ground, with Moss on the Surface, than burning.

I tried *Mortimer's* Receipt for steeping Wheat among Water, Pidgeons Dung, Nitre, &c. but little of it appeared above Ground ; what came up branched so, that I could number forty Stalks from one Grain ; every Head was very long, and the Grain large ; I planted about ten Inches distant. I don't doubt, if I had given half Seed, that I would have had a very great Increase.

Thus far I have had the Welfare of my native Country in View. I am not singular, when I say, that the Improvement of our Country ought to be our principal Study, that we may acquire Riches and enjoy Plenty. I have not ventured upon the Publication of this *Appendix* without having exposed it to the View of the honourable Society to whom these Sheets are dedicated ; and it yields me no small Satisfaction to reflect upon their Approbation thereof.

How much of late did it rejoice the Hearts of all Lovers of their Country, to observe, by Bills of Exchange, the Balance of Trade cast in our Favour ? One great Reason thereof was, that our Manufactory began to flourish ; but, alas ! by the
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Scarcity of Grain, the Scene was much altered: This makes me think, that the Generality don't consider wherein our principal Interest lies.

I would be most unjust to my noble, honourable and worthy Patrons, if I did not acknowledge, that they, and others by their Example, have carried on Improvements to such a Length, as none could have expected in such a short Time; yet I speak the real Sentiments of my Mind, when I say that Improvements, in many Places in our Country, are not thought on as yet; in others they are but *in Embrio*, and in any Place they are but in an infant State. Shew me the Farmer who can pay his Rent by his Fruits? Let me see the Man, who, upon a Farm of twenty five Pounds Rent, can yearly sell Swine to the Value of thirty or forty Pounds? Where is the Field consisting of ten Acres sown with Turneps? Where the Ox of thirty Pounds Value? Let us imagine ourselves a Colony settling in a Country, and consider wherein our principal Interest lies. Is it to rear up Manufactories? or to improve our Ground, which gives more People Bread, and is the best Foundation for other Improvements? May not a few Years of Dearth make us incapable of setting up new Manufactories, or carrying on such as we have begun? Have we not Reason to cultivate and improve our Ground? How little of it is inclosed? How much stony? How many Marishes to be drained? What a shame to behold large Tracts of Clay lying uselefs betwixt the two largest Cities of the Nation, which might be turned into good Farms? How many barren Moors? How many Mountains bare? Dare we allow ourselves to think of seeing so many Vessels come loaded with Grain from Countries which we might supply and

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underfell, if our Ignorance, Sloth and Obstinacy were removed?

After all, shall I imagine that this small Treatise, because wrote by a mean obscure Author, will meet with the same Fate as many valuable Books, buried in the Brain of speculative Readers? No, I cannot, I will not allow myself to fancy or imagine my Countrymen so stupid and insensible of their true Intrests. No, we have still some of the ancient *Scotish* Blood in our Veins. Our Ancestors ventured both Lives and Fortunes to serve their Country, and for the Honour thereof, and we, tho' we have no Need at present of *Douglass's* Bow, or *Hay's* Yoke, yet will do to the utmost of our Power, to remove Poverty, wipe off Contempt, and render ourselves and Posterity happy. In order to which, allow me to address you, *my Lords and Gentlemen*, Proprietors of our Land-Estates. The large Extent of many of your Fortunes makes it in your Power, not only to live like Noblemen, but even like Princes, if you would make it your Business to improve the same. The Author of the Essay for inclosing *Scotland*, &c. makes it appear, that this is not inconsistent with the Dignity of such of you as are in the highest Sphere. He gives Examples of Kings, Princes, Heroick Generals, Men of the greatest Parts, who have employed themselves in Husbandry. I should be sorry, if, instead of this which I have been recommending to you, any of you should be so insatuated as to build Walls to exclude yourselves from your own Lands, or keep a Number of fine Brutes to devour the Provision of your Ladies and Children, when here you may be employed with Pleasure and Profit, advance to further Degrees of

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Grandure, render your Names savory to your Posterity, and shew yourselves true Patriots.

My Lords and Gentlemen, real Love to the Place of my Nativity obliges me not to pass by that which I look upon an Error too common in those of the highest Class, *viz.* The keeping too great a Train of Servants; Servants, did I say, I am afraid many of them don't deserve the Name, being Men created for no other End, but to eat Beef, and shew a bold Face and a laced Hat. I am far from thinking, that when God has distinguished Men by the Largesses of Fortune, it is indecent for them to signalize themselves by some external Marks of Honour; all I think wrong is, when a Retinue is kept, the greatest Part of which is almost, if not altogether useless: My Wish is, that such were metamorphosed, from fine Shows, to useful Members of Society. I suppose a Nobleman to have a Farm falling in his Hand, and that he wants an Inclination to oversee the Improvement thereof himself; in this Case, nothing hinders to imploy a Man of Conscience and Fidelity, to set a Number of Livery-Men to Work, in ditching, draining, inclosing, &c. Is not this a sure Way to add to the Value of his Estate, and the Number of his Attendants, and raise his Esteem among the most rational and valuable Part of Mankind.

My Lords and Gentlemen, I likewise humbly propose to your Consideration, that you fix on Men of Candour and Integrity, of a good Taste, of good natural Parts, understanding at least the Theory of Agriculture, and settle such in Farms; that their Leases should be long; that your Rent should be augmented; that you stock these Farms, and lend them Money to improve them; that this

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Money should not be demanded back for some Years after their Entry, and that the Augmentation should not take Place at first. I humbly am of Opinion, that by such Methods you may render yourselves a Blessing to your Country, increase the Value of your Lands, add to your own Pleasure, even by beholding much of your own Properties reduced from a barren Wilderness of a dismal Aspect, which frequently filled your Mind with gloomy Thoughts, to a fruitful Field adorned with Trees, beautified with Flowers and verdant Grass, enriched with Herbs and Corn, surrounded with Hedges, the Habitation of Birds warbling forth their melodious Notes; and, in short, make your Estates an Abstract of all the Beauties of Nature and Art.

I conclude by addressing you, *Gentlemen*, the honourable Members of the Society for propagating Christian Knowledge, who have a Patent for encouraging Improvements in Agriculture. *Gentlemen*, we in this Country are most sensible, that with the greatest Judgment, Activity and Fidelity, we have acted a most Christian Part, in using your utmost Endeavours to propagate Christian Knowledge; so that there is no Society in *Scotland* wherein we can repose more Trust and Confidence. I believe none will be so foolish as to imagine, that any of your Members are in the least backward to use their utmost Efforts to encourage the improvement of our Soils. The same generous charitable Disposition which prompts you to consult the Happiness of the Soul, inclines you to shew a tender regard to the Body, knowing that the Felicity of the one depends so much upon the Happiness of the other. This makes me firmly persuaded, that nothing is wanting to you, but an

Opportunity of consulting and promoting the Interests of your native Country, with the greatest Alacrity, in every Respect. I believe none of you Number incline to keep your Talent wrapped up in a Napkin. I am rather apt to believe that your Fund is small, or that what has been collected many of you may think ought to be applied to no other Use than that most necessary one of propagating the Knowledge the of Christian Religion this being the sole Design and End of the Donors. I own it to be a narrow Point to determine, whether any of your Fund ought to be laid out in improving our Ground, or not, which I am far from thinking myself capable to determine; yet, considering that by the Course of my Studies, and my main Business for these twelve Years bypast, I have been led to think both upon Agriculture and the Education of Youth, I hope you'll take it a good Part that I lay before you what occurs to me on the Point in Hand, leaving it to your superior Judgments. I am of Opinion, that the Donor's End ought still to be kept in View; and yet I am perswaded, that the Means to attain this are left to your Discretion. I hope it won't be thought ridiculous, when I say, that, to enrich our Country is the Way to render us more capable still farther to assist you in carrying on religious Education; being certain, that, if this should happen, People of a charitable, religious, Christian Disposition would contribute more largely to propagate Christian Knowledge, both abroad and at home; I say at home, and hope that none will take Offence that I, as a Teacher, should offer my Sentiments freely, (being obliged to consult the Welfare and Happiness of Youth to the utmost of my weak Abilities) which are, that, even in our own Country

to me their seems to be Defects in the Education of Children: I mention at present only two, viz. That due Care is not taken to instill the Principles of natural Religion, the Knowledge of which, in my Opinion, ought to be taught previous to the Doctrines of Christianity. What is more common, than to see such who have enjoyed Christian Education, turn Rakes, Debauchees and Atheists? May not this be in Part, yea much, owing to this, that we begin to teach Children what we know about the divine Nature and Attributes, before we prove that there is such a Being: Thus there is but a slight Impression of the great God made upon the Mind. Again, in the second Place, what more ordinary, than to find many coming from our Schools, who, tho' they can repeat the Assembly's Catechism, can give no other Proof of their Christianity, either by their Knowledge or Practice, but the Church-Registers? I do not attribute this so much to Sloth and Negligence in Teachers, as there Want of sufficient Encouragement, and to the Smalness of their Number. If any ought to be encouraged, certainly those ought who make it their main Business to sow the Seeds of Religion and Virtue in the human Mind, and thus endeavour to make Man everlastingly happy. Such ought not only to be allowed the bare Necessaries of Life, but such a Competency, as their Minds may not be in Danger of being distracted from their Business, by anxious Cares about the comfortable Subsistence of themselves and Families. They ought to have a sufficient Collection of the best Books for their Assistance, which a Man cannot be supposed able to provide, whose yearly Income does not exceed ten or fifteen Pounds. That there are not a sufficient Number of well-qualified Teachers, to me seems plain,

plain, from the End of Education, Knowledge, Religion, Virtue and good Manners. To communicate the Knowledge of so many Characters, and their Uses, we own not to be the noble Design of Education; and yet, how is it possible for Teachers to point out the Beauties of Religion and Virtue, the absolute Necessity of a regular Life, from just and good Principles, when single Persons, who ought to be thus employed, have forty, fifty, yea, some eighty Scholars to be instructed in different Pieces of Education.

Allow me, *Gentlemen*, to make a second Supposition, *viz.* That you have no Fund but what you have already laid out for Education. If your Fund be small, or if none but what is imployed, I am apt to believe that this may proceed from your Modesty, not inclining to propose (what you may imagine some would reckon an Oppression) any more Collections. It is known, *Gentlemen*, that of late I have had Access to a great Number of every Station in this Country, and I am positive that I can make the Truth of what I affirm appear to you, *viz.* That I have observed very much of a Genius for improving our Ground among those of the highest Class; yea, that there has appeared to me a strong Inclination among others in a lower Station to assist you. Several Burghers, even none of the richest, have told me, that if you appointed a Collection, they would give, some five, some ten, others twenty Shillings. No Argument will be needful to incite the honourable Societies at *Hope-Park* and *Ormistoun*; I am honoured with the Acquaintance of several of their Members, who would think it their Happiness to shew their Zeal for the Welfare of their Country. In short, I know none who have greater Reason to expect Assistance from

from the Publick than yourselves. Can I believe that our Ministers will be averse to appoint Collections, upon Application for their Assistance, for carrying on such a noble Design? They appointed a Fast for the late Dearth; we cannot imagine that they will be backward in using their Endeavours to prevent the like Judgment for the future. They make it Part of their Business to relieve the Poor, and shall we imagine they'll be defective in using Means, which, with the Blessing of God, may banish Poverty and Want for ever from their Country? This they will reckon the best bestowed Charity, knowing that vast Numbers of the meaner Sort will be employed in ditching and delving, and receive better Wages, and more constant Work, than formerly, whereby they may save something for Infirmary or old Age; as also, that many poor Houholders would be plentifully provided in Potatoes, and other Roots, at an easier Rate than they buy Meal.

I Next, *Gentlemen*, I perswade myself that a just Representation of the many, the great Benefits and Advantages of Improvements, sent to the Royal Boroughs, might procure you a considerable Sum. We know how generously some of them laid out Part of their publick Stocks lately for the Support of the Poor. Can we imagine that they have sunk so much in one Year, and that they will contribute nothing to prevent Scarcity, Dearth and Famine for ever? Citizens will be easily convinced, that, by improving our Ground, they may have great Plenty of Milk, Butter, Cheese, Roots, Fruits, &c. Our Cattle will be of a larger Size, and fatter, and every Thing would be sold at an easier Rate than formerly; so that the greatest Churl will see it his Interest to throw in his Mite. It is certain that such
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err, who imagine that *England*, which is one of the best Countries in the World, depends much on their Grain for their own Support. I firmly believe, that one *Scots* Man eats as much Meal and Flower as three *English* Men.

Upon the whole, *Gentlemen*, I am of Opinion, that it lies in your Power to make us one of the most flourishing Nations in the World; for I am really of the Mind, that as much has been given to the Poor these two Years bypast, as might have banished Poverty and Want from *Scotland* for ever, if it had been given for encouraging Improvements in Agriculture; and therefore I believe, if you appoint Collections, the Contributions will not be small. In case you shall think fit to do this, I now use my Endeavours to pave your Way, by removing some Objections I imagine may be made against what I have proposed.

First, Some may say, It is foolish to propose any considerable Quantity of Fruits and Roots; for the former we cannot have so good, or in such Plenty as the *English*; and it is almost impossible to preserve both them and the latter from Thieves. In answer, If our Fruits are not so rich and fine as in *England*, yet we eat such as we have, and value them so much, that an Apple-Tart is esteemed one of our best Dishes, which the meanest of the *English* look on as their worst Fare. Again, tho' I don't think we can have Fruit in such Plenty as they, yet I see no Reason for thinking that we shall want Sufficiency. They have what is superfluous. I have frequently seen a Man allowed Half of what he plucked of Plumbs and Cherries for his Trouble; and yet, in some Years, in *Kent*, &c. the greatest Part of these Fruits are suffered to wither on their Trees. Let us not then argue against ourselves

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from their Superfluity: Our Inclosures may furnish what is necessary. Fruits and Roots may be in Danger by Thieves: But if this be an Argument, why did not the *English* at first use it? Do the *Irish*, who now begin to follow their Example, argue thus against themselves? What I propose is, that, as a Foundation of Improvement, our Country should be inclosed. Secondly, I believe our Justices will put the Law against Offenders in Execution. Lastly, Is it not the Farmer's Interest, who has a Prospect of raising himself, to be vigilant till his Danger be past? I therefore leave this to be answered better by himself, his Hut, or Summer House, his trusty Dog, and his Gun.

Others will say, I have laid down a great Number of new foolish airy Notions, and who will follow the Directions of such a light-headed Author; to introduce such Novelties would expose us to the Ridicule of the Country. I ask, Have not many of us run the same Risque within these forty Years, who ventured upon Summer-Fallowing, and sowing Grass-Seeds, who have thereby made themselves rich? Would you not be the Ridicule of the *English* Farmer, when talking at this Rate? If I should say, that, if I were not hindered by my Circumstances, I could shew you a Farm yielding twice as much Gain as it does at present, do I boast of more than Thousands of *English* Ploughmen would do? How mean soever the Author may be, I ask the most judicious, whether he has shewn himself Friend to you and his Country. Supposing you a Collector employed by the Society I addressed, Are you ashamed of this? Pray what can the foolish Churl be imagined to say, which may not be interpreted thus, There stands a Gentleman, a true Patriot, appearing for the real principal Interests of

of our Country, which I don't value so much as I do one poor Shilling? Another may say, I won't give one Farthing to improve another Man's Ground, I have Ground of my own. I ask, Do you depend on human Society, and will you do nothing for the Interests thereof? You have Ground. Why not put in for your Share of a Premium, as well as others? If you have inclosed your Ground already, by proceeding you shall get the first Start of the Market, by planting a Fruit-Tree in place of a barren one, and sowing Clover-Seed, and Roots for Swine, and, I think, if you do so, the Gentlemen whom you assist in carrying on the noble Design I mentioned, will probably encourage you, by giving you a Premium. But why a Premium? That which alone will make Improvements universal, must proceed from the Experience that what we do brings us Gain. A trifling Premium will be no Motive. I answer, does not *Ireland* abound more in the Necessaries of Life than *Scotland*, and yet the *Irish* offer Premiums to such as sow Fields of Turneps, make Cyder, &c? For the Truth of this, I refer you to our *Scots Magazine* of *August* last. Having the Wisdom of a Nation to plead for me, I hope what I advance will not be reckoned so ridiculous as some imagine. *Secondly*, Why may not we believe that many may be moved by the Hopes of a Premium?

I could wish Potatoes were planted more commonly for the future. These are not transported to foreign Countries; and therefore, when we have a Demand for our Grain from abroad, these would help much to keep Plenty at home, and render us able to transport more Corn yearly than we do. I suppose a moorland Farmer, who possesses much light Ground covered with Bent, or sucken Ground inclining

inclining to Moss; he sows little, has a great Quantity of Dung, his Ground is rated from one Penny to Sixpence *per* Acre; I prescribe no Rule, but suppose that ten Shillings *per* Acre be promised to him for planting Potatoes. I imagine many would look on this Man as a Fool who would refuse to do it, considering that he has not only this Reward made sure to him, but likewise may expect some Increase, and likewise may entertain the Hopes of a good Crop of Barley the Year immediately following. Again, why may not a Gentleman plant Walnut-Trees in his Hedges, in place of Ashes, when he is sure of a Premium and finer Wood? What hinders from planting Quinces on wet cold Ground, or dividing and subdividing large Inclosures by Fruit-Trees, which are as easily planted as barren ones, when a Man is sure, if he misses Fruit, he shall have a Premium *per* hundred for so doing.

Notwithstanding of all I have wrote, I am sensible that there is too much of a general Aversion to Improvements in our Country: Therefore, to conclude what I design, to you the worthy and honourable Society I address, I humbly propose to your Consideration, whether it may be useful to settle Men of a good Taste, in Farms in different Places of the Country, lending them Money by Degrees; that these should be under the Inspection of sufficient Judges in Husbandry, such as the *Hope-Park* and *Ormistoun* Societies; that they should shew an Example to their Neighbours, not only by hedging and ditching, but also by dunging of Grass, sowing Grass-Seeds, making Cheeses after the *English* Fashion, breeding Hogs, Sheep, Cows, of the largest Sizes; sowing Turneps, Parsneps, Carrots, planting Potatoes and Fruit-Trees, and at length of

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making Cyder and Perry. Thus the Nation might see how far a *Scots* Farm might be improv'd, and what it can produce.

I humbly propose likewise, *Gentlemen*, that, in order to a Fund, if you think proper to intimate Collections, that you do it as soon as you shall think it convenient. I believe you'll not think it needless to strike the Iron while it is hot; while we are still impress'd with the Hardships many underwent during the late Dearth. I know none, *Gentlemen*, who can use more powerful Arguments than yourselves, tho' one would be ready to imagine no Motives needful. Why should the rich Man be incited to load his Table with greater Variety of finer Dishes? Shall the Mechanick be desired to beware of starving himself and Family, not being so much employ'd as usual, by such as may be forced by Dearth to lay out almost the whole of their Income on Victuals, the Want of which they cannot bear so well as that of his Workmanship? Is it needful to perswade tender-hearted Parents, to use Means to prevent Scarcity, when they remember that lately each of their Children rose from every scanty Meal with Tears, complaining that their Brethren or Sisters Portion was larger than their own, and asking, When shall we get, and what shall we get to our *Fouilouils*? Here is Simplicity with a Witness; and I am sure Thousands can witness that what I write was really their Case. Have not young, strong, robust Servants appeared with Paleness in their Faces, not being in Service, and shall such be desired to bring their Mite to *Joseph*, not for Provision against Famine, but to prevent it? My Invention cannot contrive stronger and more noble Arguments than what I imagine you may use; such as, Give, give
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liberally, that you may not give; that Objects of Charity may cease; or rather that you may be more capable of reflecting upon your Fellow-Creatures the Rays of that Bounty and Goodness which are dearted down upon yourselves, and which will be returned to you, if you do so, with great Interest and vast Pleasure.

I now conclude, *Gentlemen*, with the Proposals of a Nobleman, a true Lover of his Country, *viz.* That considering our Highlands and Islands are for the most Part uncultivated, it might be of Use to put into the Hands of the Youth, who live there, Books upon Husbandry; and, particularly, if Scholars were taught to read them in Charity-Schools, as well as sacred Authors, because this might be a Mean to stir up the Parents out of Curiosity to read them, and their Children, when advanced to riper Years, to pursue them. If this Proposal meet with your Approbation, and if you think that what has dropt from my Pen may be useful this Way, I shall resign any Right I can claim to the Profits by the Sale thereof in your favours, having first sold these two thousand Copies for the End I proposed in my Dedication. As also I shall reckon it my Happiness, without the smallest Reward, to assign to you all my future Labours upon Husbandry.

Thus far I have had in View the principal Interest of my native Country. I am sensible that I have not wrote in such a polite Stile as the Subject could allow, yet have endeavoured to found what I have said upon Truth, such as I think needful, and hope may be useful; and if it be really Truth, let none dispise the Subject because so rudely treated, improving in Agriculture being owned to be the best and surest Foundation whereupon to rear the noble

noble Superstructure of Manufactories and Fisheries, besides the Advantages to be reaped from itself. I lay my Account to be looked upon, by some, as a notional empty Schemer. If I be vile in their Eyes, I still endeavour to become viler, by telling them, that I'm sorry we have no greater Number of Projectors among us. Having first laid the Foundation upon Agriculture, I heartily wish that an abler Hand may convince us, that it is the Disgrace of our Country, to send so many Thousands of Spindles of Yarn to our Neighbours, to be returned when manufactured to ourselves; and that it is our Interest to manufacture Iron, to prevent some Thousands of Pounds being yearly carried off by single Merchants; and that, if our Ground were once rightly improven, those Myriads of Fishes, sent by Providence to our Coasts, should not enrich our Neighbours, whilst we are called the *Poor Scot*.

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